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RECORD OF DECISION

USDA FOREST SERVICE

SUPPRESSION OF THE SOUTHERN PINE BEETLE

FINAL ENVIRONMENTAL IMPACT STATEMENT

Deciding Official: F. Dale Robertson  
Chief, USDA Forest Service





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## I. INTRODUCTION

This Record of Decision identifies the alternative selected for implementation as the program for suppressing southern pine beetle (SPB). The alternative to be implemented will apply to all SPB suppression projects on national forest lands in the South and to cooperative suppression projects where Federal cost-sharing is provided for SPB suppression on other Federal, State and private lands. Included are the pine forests in Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and a portion of West Virginia. Also included within the national forests are southern wildernesses established by Congress. The final environmental impact statement (FEIS) discusses in more detail 15 wildernesses in Alabama, Arkansas, Louisiana, Mississippi and Texas because of their susceptibility to SPB. The alternatives considered and my rationale for deciding to implement alternative 4 are described in this Record of Decision (ROD). The environmentally preferable alternative (alternative 3) is also identified and discussed.

The decision to implement alternative 4 permits but does not require control of SPB infestations in wilderness. Alternative 4 offers the "no control" option and it is this option that will be exercised most often to allow natural forces to play their role in the wilderness ecosystem. It is only when these natural forces are predicted to threaten an essential RCW colony or cause unacceptable damage to specific resources adjacent to the wilderness that control in wilderness may be taken.

Stringent new criteria for determining the need for control in wilderness have been discussed in the EIS and clarified in this ROD. These criteria reflect the Forest Service's awareness of the importance of allowing natural processes to occur in wilderness. The new criteria are very much different from the criteria guiding SPB control in wilderness under the 1974 EIS and approved EA's. Public involvement during the scoping process for the current EIS encouraged the Forest Service to develop alternatives and criteria that are much more restrictive than past criteria. The new criteria place strict conditions on when vehicles may be allowed in wilderness; emphasize protecting only State and private lands, or high-value Federal forest resources (such as a camping area or picnic area) with Regional Forester's approval; permit control only in the 1/4-mile zone along the wilderness boundary; protect only those RCW colonies in wilderness that have been identified as "essential" by the Fish & Wildlife Service; direct the use of the most up-to-date and accurate spot growth model to predict the growth of every spot being considered for control in wilderness to insure action is necessary; and requires an assessment of the threatened resource, management objectives of the affected State and private landowners and threat of SPB to these lands from nonwilderness sources before a decision is made on whether or not to control.



By implementing an alternative that will allow the natural process of most SPB infestations to occur uninterrupted in wilderness, and by employing control action only under the most stringent conditions, the Forest Service declares its intention to manage each wilderness to insure that wilderness character and values are dominant and enduring.

In 1974, the Forest Service issued an EIS, Strategy for Control of Southern Pine Beetle in the Southeastern United States. The 1974 EIS reflected the state-of-the-art of SPB knowledge and environmental concerns at that time. SPB control activities since then have been based upon that EIS and the SPB program was operating under the authority provided by the ROD issued in 1974. The 1974 ROD will be superseded by this document.

Changes since 1974 necessitated the preparation of a new EIS. The major changes include an additional control technique (cut and leave), an additional insecticide (chlorpyrifos), clarification of policy regarding pest suppression in newly established southern wildernesses, protection of habitat for the endangered red-cockaded woodpecker and the biological opinions of the Fish & Wildlife Service regarding the protection of essential colonies in wilderness.

The endangered red-cockaded woodpecker (RCW) was not addressed in the 1974 EIS. The issue associated with the RCW requires reconciling the Forest Service responsibilities under the Wilderness and the Endangered Species Acts. SPB infestations threatening to invade RCW colony sites in the southern wildernesses cause the problem. Controlling SPB in wilderness contradicts the wilderness preservation intent of the Wilderness Act. Alternatively, a recent USDI Fish & Wildlife Service (FWS) biological opinion (December 12, 1986) states that the loss of any essential RCW colonies is likely to jeopardize the perpetuation of the species (see FEIS volume 3, appendix F, page F-38). The FWS opinion implies that if action is not taken to protect essential RCW colonies, the Forest Service would be in violation of the Endangered Species Act.

The preparation of a new EIS was also prompted by two recent lawsuits challenging SPB control in wildernesses. Control activity in wilderness was preceded in each forest by environmental assessments (EA's) analyzing the effects of control on each wilderness. These EA's were tiered to the 1974 EIS and led to findings of no significant impacts.

The Forest Service decisions to enter the wildernesses have been challenged by the Sierra Club, the Wilderness Society and, in Texas, the Texas Committee on Natural Resources.

On April 17, 1985, plaintiffs filed a Complaint for Declaratory Judgment and Injunctive Relief in the U.S. District Court for the Eastern District of Texas, Lufkin Division. That complaint alleged, among other things, that the Forest Service's SPB suppression program in the designated wildernesses in the National Forests in Texas violates the Wilderness Act, the Endangered Species Act, and the National Environmental Policy Act (NEPA). On July 11, 1985, the Sierra



Club and the Wilderness Society filed a Complaint for Declaratory Judgment and Injunctive Relief in the U.S. District Court for the District of Columbia. That complaint alleged, among other things, that the Forest Service's SPB suppression program in wildernesses in Arkansas (Ouachita National Forest only), Mississippi and Louisiana violates the Wilderness Act, the Endangered Species Act and the National Environmental Policy Act.

The Texas District Court held a hearing on the plaintiff's motion for preliminary injunction on May 24, 1985, and issued a court order on June 4, 1985 (SIERRA CLUB v. BLOCK, 614 F. Supp. 134 (E. D. TEXAS 1985)). That order required, among other things, that Forest Service control operations within the wildernesses in Texas be undertaken only where those control activities were necessary to protect existing RCW colonies or to prevent the spread of beetles to lands bordering the wildernesses. The District of Columbia Court held a hearing on the plaintiff's motion for preliminary injunction on July 25, 1985, and issued a preliminary injunction on July 31, 1985. (SIERRA CLUB v. BLOCK, 614 F. Supp. 488 (D. D. C. 1985)). The court enjoined the Forest Service from carrying out the SPB control program in the wildernesses in Arkansas, Mississippi and Louisiana. However, control may be undertaken in these areas for the sole purpose of preventing harm to the RCW, if done according to the approved guidelines and preceded by notice to the FWS. The court order further provided that this preliminary injunction could be modified or vacated if the Forest Service completed a programmatic or site-specific EIS for any or all of the four wildernesses covered in this suit. The Forest Service is presently operating under the orders issued by those two courts.

A decision to prepare an EIS was made and the Notice of Intent was published in the Federal Register on August 15, 1985. A Draft EIS was transmitted to the public and the Environmental Protection Agency on July 14, 1986; EPA's Notice of Availability was published in the Federal Register on July 25, 1986. The Forest Service analyzed the comments received and, in accordance with 40 CFR 1503, responded to substantive comments in preparation of the FEIS. The FEIS was transmitted to the public and EPA; EPA's Notice of Availability appeared in the March 6, 1987 Federal Register.

The FEIS documents the results of an analysis for the southwide SPB control program for general forest area and wildernesses, including detailed analysis for 15 wildernesses. The FEIS evaluates relevant aspects of the program such as methods of control, impacts, alternatives, and constraints. It describes alternatives, including alternative 4 that I propose to implement, as well as the no action alternative. The affected environment is discussed and the environmental consequences of implementing the alternatives are disclosed.

The FEIS also provides the background information needed to support site-specific analyses for future SPB control projects and allows for tiering the site-specific analyses to the FEIS. In wilderness, a site-specific analysis will be performed to determine circumstances or characteristics likely to be impacted that are not covered in this

FEIS. The appropriate NEPA documentation will then be prepared before any action is taken.

The FEIS discloses the impacts of controlling SPB infestations under existing forest conditions. It does not include an alternative that addresses long-term management practices which would reduce SPB impacts in the future. Little can be done immediately to control SPB through forest management practices because of the extensiveness of the pine forests and the speed with which SPB outbreaks can occur and spread. Changes in species composition, stand densities, age classes, site productivity and the results of other silvicultural techniques that reduce the hazard of SPB attack are long-term. I recognized the need for long-range planning to reduce the susceptibility of southern forests to SPB and directed that an interdisciplinary Forest Service team be formed to develop short-term and long-term management strategies to reduce future SPB impacts. A report entitled Managing Southern Forests to Reduce Southern Pine Beetle Impacts: Long- and Short-Term Strategies and Research Needs, May, 1986 (available from the USDA Forest Service, Office of Information, 1720 Peachtree St., NW, Atlanta, GA. 30367) provides recommendations and identifies research needs that will reduce future timber losses caused by SPB.

## II. ALTERNATIVES

Fifteen alternatives were developed based on existing information and concerns expressed by the public during the scoping process. Nine of the alternatives were eliminated from detailed study (see FEIS volume 1, chapter II, page 2-33).

### Alternatives Not Considered in Detail

1. Reclassify wilderness to nonwilderness status.
2. Develop and implement a plan for each wilderness, outlining standards and guidelines for managing its pine type to lower risk of SPB attack.
3. Take no action in wilderness.
4. Take action in wildernesses to protect RCW colonies including foraging sites.
5. Take action in wildernesses to protect RCW colony sites; employ IPM in the general forest area.
6. Take no action in wilderness; allow spots to expand in wilderness until they go inactive or move onto adjacent State, private or Federal lands.
7. Take no action in wilderness; purchase in fee or partial interest a 1/4 mile-strip of private land next to wildernesses containing susceptible pine type.

8. Adjust wilderness boundaries to provide a buffer area between wilderness and State and private land.
9. Continue management direction for SPB control under the approved EA's.

#### Alternatives Considered in Detail

Six alternatives were discussed in detail in the FEIS. They meet the Federal and State suppression objectives for controlling SPB spots and reducing impacts on forest resource losses (see FEIS volume 1, chapter II, page 2-1) and respond to the issues and concerns raised through scoping activities. The six alternatives that were given detailed evaluation are:

1. No action.

No action would be taken to control SPB infestations on National Forest System lands. No funds would be available for cost sharing on other Federal, State and private land; the Forest Service would continue to provide technical assistance to States.

2. No action in wilderness and employ IPM in general forest areas.

SPB would run its natural course in wilderness. No action would be taken to protect RCW colonies nor outside resources. Infestations would be monitored in wilderness to warn adjacent landowners if SPB endangered their trees.

IPM would be used to control SPB infestations outside of wilderness in the general forest areas. IPM includes all suitable methods to prevent or reduce SPB damage. These tactics may be chemical or mechanical. Biological controls will be included when their use is proven to be practical and effective. Any adverse effects on the environment will be assessed in an appropriate NEPA document. Priority would be placed on managing adjacent stands of trees to prevent or reduce pest-caused damage.

3. Action in wilderness only to protect essential RCW colony sites and foraging area. Employ IPM in general forest areas.

In wildernesses where RCW colonies are known to be present, SPB would be allowed to run its natural course until an essential occupied RCW colony sites and foraging area or one that was occupied during the previous breeding season is threatened. An essential colony is defined by FWS as one needed to recover the species (see page 17 of this Record of Decision). The area to be protected includes the colony site and foraging area, totaling about 125 acres per colony.

No action would be taken in wilderness unless a SPB infestation was predicted to threaten an essential RCW colony (125 acres) within the next 30 days. Before any action would be taken in wilderness a site-specific analysis must show reasonable expectation of meeting



the control objectives. If the analysis predicts that the control measures would not save the essential RCW colony site, taking no action would be considered. Before a final decision is made to take no action, the Fish and Wildlife Service would be consulted.

In wildernesses without RCW colonies or with nonessential colonies, SPB would be allowed to run its natural course. Detection, monitoring of infestations would be continued. Adjacent landowners will be provided advance notice when SPB spots are predicted to expand to lands outside wilderness boundaries.

Control measures have been modified to have the least long-term impact on wilderness attributes. The following control measures are described in detail in the FEIS volume 1, chapter II, pages 2-2 through 2-14.

- a. Cut and remove by helicopter.
- b. Cut and leave.
- c. Cut and remove by animal or removed by cable skidding to roads outside wilderness boundary. Trees would be skidded by draft animals when next to existing public roads outside of wilderness boundary.
- d. Cut and hand spray. This would be used on small spots, usually 100 or less active trees.

In extenuating circumstances, such as an intense outbreak, or lack of adequate resources to implement the preceding control methods, use of motorized ground vehicles may become necessary to protect colony sites. However, use of such to do control work in wildernesses would require complete documentation of the extenuating circumstance and approval in advance by the Regional Forester. This deviation would be used only as a last resort when destruction of an essential RCW colony is imminent.

In general forest area, control would be the same as alternative 2.

4. Action in wildernesses to protect essential RCW colony sites and foraging areas, adjacent State and private lands, and high value Federal forest resources other than commercial timber (such as recreation sites, scenic vistas, sensitive watersheds, or seed orchards). Employ IPM in general forest area. (Alternative selected for implementation).

Action to protect essential RCW colonies would be the same as in alternative 3.

Action could be taken in wildernesses to protect adjacent State and private as well as high-value Federal forest resources, if three conditions are met:

- a. A spot is located within 1/4 mile of these lands;

- b. A biological evaluation predicts that the spot would expand onto the lands and cause unacceptable damage as determined by the resource manager; and
- c. The additional conditions described in section IV. DECISION, pages 12-13 of this ROD, are met.

Action would not be taken until a site-specific analysis assesses the impacts of the action on the wilderness resource and assures that control objectives can be met.

If a no-control decision is made for an infestation predicted to spread to adjacent lands, monitoring of the spread would continue in order to provide advance warning to outside landowners.

Control methods and deviations from these methods are the same as for alternative 3. In addition to using vehicles in wilderness to protect essential RCW colonies, vehicles could also be used under this alternative to protect adjacent State and private lands, or high-value Federal forest resources other than commercial timber. However, extenuating circumstances similar to those described in alternative 3 must exist to cause an immediate and certain threat to do unacceptable damage to adjacent State or private lands, or impact high-value Federal forest resources other than commercial timber. Under these conditions, and only as a last resort, the Regional Forester may approve the use of ground vehicles in wilderness.

Infestations would be allowed to run their natural course in wildernesses if spot growth models predict that no essential RCW colonies, resources on adjacent State and private lands, or high-value Federal forest resources other than commercial timber would sustain unacceptable damage.

Control in general forest area would be the same as for alternative 2.

See section IV. DECISION, pages 11-14, of this Record of Decision for a more detailed discussion of alternative 4.

- 5. Action in wilderness to protect essential RCW colony sites and foraging areas, and all adjacent lands (State, private and Federal). Employ IPM in general forest areas.

Action to protect the essential RCW colonies would be the same as for alternative 3.

In wildernesses, all actions are the same as those in alternative 4 except control action as set forth for State and private lands would be taken to protect adjacent Federal lands as well.

In the general forest areas, control would be the same as for alternative 2.

## 6. Employ IPM in all areas.

In wilderness, all spots that are predicted to exceed 10 active trees would be controlled as soon as possible. Most of the mitigation measures applicable to the wildernesses under the other alternatives would also apply under alternative 6. Control in wilderness would probably be more commonplace under alternative 6 since the control frequency would be similar to that experienced in the general forest area. Two constraints would be placed on IPM in wildernesses: no new roads would be built, and trucks would be no larger than necessary to remove trees.

Control in general forest areas would be the same as for alternative 2.

The alternatives are discussed in more detail in FEIS volume 1, chapter II, pages 2-35 to 2-44. The environmental consequences of these alternatives are discussed in FEIS volume 1, chapter IV, pages 4-2 to 4-42.

### Identification of the Environmentally Preferable Alternative

No man-caused impacts would occur in wilderness under alternatives 1 and 2 since no SPB control would be performed.

The FEIS contains an analysis that shows IPM in the general forest area and alternative 3 for wilderness to have the least impact on the environment when used with the recommended mitigation measures. Alternative 3, SPB control in wilderness to protect essential RCW colonies and IPM in the general forest area, would be the environmentally preferable alternative. This alternative would have the least overall impact to the biological and physical environment. Alternative 4 would result in greater effects on the physical and biological environment of wildernesses than would alternative 3. Although more wilderness acreage would be impacted by suppression activities under alternative 4, there is no way of knowing how many additional acres would be affected, or what the total number of acres affected would be since the specific number and location of SPB infestations requiring treatment cannot be predicted. The cumulative impact of the total acres affected would be a major consideration each time a site-specific analysis of whether to control in wilderness is made. Alternative 4 was chosen over the environmentally preferable alternative for the reasons discussed in detail on pages 14-28 under section V. RATIONALE FOR DECISION.

In the six wildernesses with the 16 essential RCW colonies, alternative 3 would cause more surface disturbance and associated impacts than would alternatives 1 and 2. However, the biological impacts of alternatives 1 and 2 could be significant. The FWS biological opinion states that the continued existence of the RCW would likely be jeopardized unless these 16 essential colonies are protected. Physical impacts to the environment can be mitigated and pass with time; however, the loss of a species cannot. Although alternatives 4, 5 and



6 would also protect the essential colonies, the impacts on the wilderness would be greater than for alternative 3 because a greater area would be affected.

The indirect effects of alternative 1 would impact the general forest area more than would alternative 3. "No action" under this alternative pertains only to SPB control. An increase in management activities and other programs in the general forest area under alternative 1 would cause an increase in environmental impacts. Some of the probable management activities and impacts likely under the no action alternative include:

1. Salvage sale programs under outbreak conditions would increase significantly. Timber sales would likely increase in frequency and size to salvage trees killed by SPB.
2. IPM allows compliance with current forest stand management guidelines. These guidelines limit stand regeneration size and provide for dispersal of the harvest sites to enhance other resources, such as wildlife or visual considerations. Under alternative 1, SPB would influence stand regeneration size and location and may not enhance the other resources. If large areas needing regeneration are randomly created by SPB, other resources could be adversely impacted.
3. If current guidelines restricting the size of harvest areas are exceeded, the site preparation and reforestation activities would increase and cause a higher level of environmental impact than would occur when stand size is limited by management.
4. The amount of dead trees lying on the ground would increase significantly after an outbreak under alternative 1. This would provide fuel for wildfires, causing an increase in wildfire frequency and intensity. These wildfires could adversely affect an array of resources.
5. While SPB control activities would cease on Federal lands under alternative 1, control would continue on State and private land. Suppression activities may increase there due to the lack of suppression on Federal lands, increasing the environmental impacts on those adjacent lands.

## II. PUBLIC COMMENT TO THE DRAFT EIS

The public participation in the development of the FEIS and comments received on the Draft EIS have been extensive. We received 351 letters in response to the Draft EIS. All 13 States in the Southern Region were represented; however, over 70 percent of the responses came from Texas. We received 268 letters from individuals; the rest were from elected officials and organizations. All comment letters are reproduced in FEIS volume 2 along with the Forest Service response to each substantive comment requiring a response under 40 CFR Sec. 1503.

Primary concerns expressed in these letters addressed SPB control in wildernesses, impact on the RCW, effectiveness of control methods, impact on adjacent lands, the use of more long-term preventive measures such as encouraging a mix of tree species, and the use of nondisruptive control techniques such as pheromones or biological controls.

Those who tended to support SPB control within wildernesses included State forestry agencies, the Society of American Foresters, the forest products industry, adjacent landowners, State forestry associations, and the Pacific Legal Foundation. Some provided case studies and experiences regarding the effectiveness of control. Those who objected to control in wilderness included the Sierra Club, Earth First!, Texas Committee on Natural Resources, the Wilderness Society, professors of entomology at the universities of Arkansas, California, North Carolina State, and Oregon State, as well as U.S. Congressman John Bryant from Texas.

Many letters favored alternative 2 - no control in wildernesses and the use of IPM in the general forest area. The reasons given for opposing control in wilderness included the belief that any control violated the intent of the Wilderness Act, and misgivings about the uncertainties of the effectiveness of control methods. Many felt control actions were worse than the effects of SPB. They considered the wilderness resource to be more valuable than resources outside wilderness and many wanted SPB control only after the infested spots crossed the wilderness boundary. They favored a no-control policy which they believed would result in a mixed stand of hardwood and pine that would be less susceptible to SPB attack in the future. Many also felt RCW colonies within wilderness are not important for overall survival of the species. They expressed the opinion that protection of RCW habitat is not justification enough for control in wildernesses.

Another major area of concern was the protection of lands adjacent to wilderness boundaries. Respondents favoring SPB control in wilderness offered the opinion that alternative 4 does not provide adequate protection to adjacent landowners because the 1/4-mile zone inside wilderness was not considered wide enough. Some felt control should be triggered by the number of active trees in a SPB spot, regardless of its location. This was based on the assumption that allowing spots to expand in the interior of wilderness would increase losses outside. The concern was that spots would eventually become so large that, by the time they reached the boundary, control would be more difficult, if not impossible. Consequently, the impacts from controlling large spots would be greater to wilderness. Others felt that the spread of an infestation onto adjacent land is a risk that landowners should accept.

Alternative 4 has been re-examined and clarified to address the concerns raised during the Draft EIS public comment period:

1. The Forest Service recognizes wilderness as a valuable resource and strives to preserve the natural ecological processes and conditions that give it a wilderness character. SPB control will not be allowed in wildernesses unless all criteria listed in section IV of this Record of Decision are met.



2. The Forest Service will only control SPB infestations in wildernesses to protect essential RCW colonies when: (a) the colony site is occupied or was occupied during the previous breeding season, (b) a biological evaluation indicates that the SPB infestation will adversely affect the colony site or foraging area within the next 30 days, and (c) site-specific analysis indicates that control should be successful.
3. The Forest Service acknowledges the importance of non-Federal forest lands for timber and other forest resources. However, no action will be taken to protect these lands from SPB infestation within wildernesses unless all conditions are met in section IV of this Record of Decision.
4. The Forest Service recognizes the need for improved control methods and long-term preventive measures to reduce the susceptibility of southern forests to SPB. Steps taken to meet this need would involve changes in species composition, densities, and age classes. As discussed in the introduction of this Record of Decision, there is a separate report entitled, Managing Southern Forests to Reduce SPB Impacts: Long- and Short-term Strategies and Research Needs that addresses long-range management. This report provides direction for the South-wide emphasis on managing forests that are less susceptible to SPB attack.
5. The Forest Service recognizes the potential for nontraditional control methods such as synthetic pheromones, natural enemies, and new chemical controls. The effectiveness and environmental impacts of these techniques have not been determined. However, the Forest Service maintains close contact with researchers in these fields and is receptive to pilot testing promising developments. See FEIS volume 1, chapter II, page 2-21, Status of Nontraditional Controls, for additional information.

## V. DECISION

I have decided to implement alternative 4; when control of SPB infestations becomes necessary, I will follow the procedures set forth in the FEIS volume 1, chapter II.

### General Forest Area

Alternative 4 continues integrated pest management (IPM) to reduce timber losses caused by SPB. IPM is a process for selecting strategies to regulate forest pests to achieve resource management objectives in which all aspects of a pest-host system are studied and weighed. IPM is the planned and systematic use of detection, evaluation, suppression and monitoring techniques that are economically, environmentally, and aesthetically acceptable, as assessed in the FEIS. All appropriate silvicultural, biological, chemical, genetic, and mechanical tactics needed to prevent or reduce pest-caused damage and losses may be employed under IPM.

## Wilderness

The majority of SPB infestations will be allowed to run their natural course because they will not meet the stringent control criteria required under alternative 4. Control of individual SPB infestations will not be conducted unless the site-specific analysis, including a biological evaluation of the individual infestation, indicates that the spot(s):

- Will likely threaten the continued existence of an essential RCW colony site and foraging area. (Essential colonies are defined on page 17 of this Record of Decision); or
- Occurs within 1/4 mile of susceptible host type on State and private land or high-value Federal forest resources other than commercial timber. (Treatment of high-value, Federal forest resources would require Regional Forester's approval).

In addition to identifying the above circumstances for which control in wilderness would be considered, all the following additional conditions must be met before an infestation may be controlled in wilderness.

For essential RCW colonies:

1. The colony site is occupied or was occupied during the previous breeding season.
2. The SPB spot growth model predicts the spot would threaten the continued existence of the colony site or foraging area (totaling 125 acres) within the next 30 days.
3. The site-specific analysis indicates that successful control can be expected, given: (a) the intensity of the infestation; (b) the constraints applied to the control methods for use in wilderness; and (c) the resources available to control the spot.

For adjacent State and private lands and high-value Federal resources other than commercial timber:

1. The SPB spot growth model predicts the spot would spread across the wilderness boundary and cause unacceptable damage to the resource on these lands. The value of the resources on the adjacent lands that are at risk from the SPB threatening to spread from wildernesses would factor into the determination of "unacceptable damage." So too would the intangible value of wilderness qualities damaged by SPB control action. The Forest Service will use a site-specific analysis to judge whether there is a threat of unacceptable damage to the resources on adjacent lands. The seriousness of the threat would depend on the level of damage predicted. Some of the relevant considerations for making such a judgment are: the management objectives of the owner, a high likelihood that SPB damage would significantly detract from the landowner's management objectives, values at risk or threatened are

high, trees are highly susceptible to SPB damage, and management and use are intensive. Control action would be taken only when there is reasonable assurance of accomplishing control objectives.

2. Control action may be taken when the site-specific analysis indicates that successful control can be expected, given: (a) the intensity of the infestation; (b) the constraints applied to the control methods for use in wilderness; and (c) the resources available to control the spot.
3. The site-specific analysis will indicate and assess the potential impacts to wilderness. The potential impacts, such as the approximate number of trees that would be cut and the cumulative effects of any previous control operations on wilderness attributes (natural integrity, apparent naturalness, outstanding opportunities for solitude and primitive recreation) will be considered before a decision whether to initiate control is made.

Affected and interested public will be kept informed about potential control related activities in wildernesses. When a decision is made to control SPB infestations that are threatening essential RCW colony sites, the Forest Service will inform the affected and interested public in an appropriate manner of the decision and their rights of appeal. When SPB control is being considered in wilderness to protect adjacent State, private or high-value Federal forest resources other than commercial timber, the affected and interested public will be involved in the decision. (See Exhibit 2). Public involvement will be appropriate to the level of NEPA documentation prepared to analyze the site-specific environmental impacts.

Individuals or groups that are dissatisfied with any particular site-specific project on National Forest System lands may seek administrative review of that site-specific project after a site-specific decision has been made.

The operational components and mitigating measures of alternative 4 are described in detail in FEIS volume 1, chapter II, Mitigation, pages 2-24 through 2-27. The mitigating measures are included under MANAGEMENT REQUIREMENTS on pages 28-34 of this Record of Decision. Practical means to avoid or minimize harm to the environment have been incorporated in the mitigation measures and apply to control action in both the general forest area and wilderness.

#### Comparison of Alternative 4 with Current Management Direction for SPB Control in Wilderness

Alternative 4 will produce the following changes in SPB suppression in wilderness from past management direction:

1. Includes the addition of lindane for cut-and-hand spray treatment.
2. Provides stricter criteria regarding treatment selection for essential RCW colonies in wilderness (see FEIS volume 1, chapter



II, Decision Keys, pages 2-30 to 2-32, and section IV of this Record of Decision).

3. Limits SPB infestation control considerations in wilderness to spots within 1/4 mile of State and private land or high-value Federal resources other than commercial timber and predicted to spread onto these lands.
4. Requires that SPB spots will have a predicted unacceptable effect on State and private lands, and Federal lands having high-value forest resources other than commercial timber be considered before a decision is made.
5. Limits protection to essential RCW colonies that have been active within the past year.
6. Requires that before a SPB spot is treated in wilderness, a site-specific analysis must show a reasonable expectation for meeting the control objective(s), given the constraints placed on control methods.
7. Requires that the SPB spot growth model will be used to predict the growth of the spot over time before a control decision is made.

#### V. RATIONALE FOR DECISION

##### Applicable Laws

I have decided to implement alternative 4 because I think it provides the best response to the need for SPB suppression and meets the intent of law and regulations governing Forest Service operations. The following laws pertain to action taken under the alternative that I will implement:

1. The Cooperative Forestry Assistance Act. 16 U.S.C. 2101, et seq.
2. The National Environmental Policy Act. 42 U.S.C. 4321, et seq.
3. The Federal Insecticide, Fungicide, and Rodenticide Act, as amended. 7 U.S.C. 136, et seq.
4. The Wilderness Act. 16 U.S.C. 1131, et seq.
5. The Endangered Species Act. 16 U.S.C. 1531, et seq.
6. The Multiple-Use Sustained Yield Act, 16 U.S.C. 528, et seq.

For the general forest area, two alternatives were analyzed in the FEIS; these were no action and IPM. Alternative 1 is the no action alternative. Alternatives 2 through 6 can be grouped together because they all permit IPM within the general forest area. The FEIS discussed the compatibility of IPM with environmental considerations such as air, water, soil, wildlife, and human health protection. Also, 36 CFR 219.27 (a)(3) directs the Forest Service to be "consistent with the

relative resource values involved, prevent or reduce serious, long lasting hazards and damage from pest organisms, utilizing principles from integrated pest management." In addition, during the scoping process and the draft EIS public comment period, the public expressed little concern over the use of IPM in the general forest. Therefore, I will implement IPM to control SPB outbreaks in the general forest area.

The following rationale for my decision to implement alternative 4 deals primarily with SPB control in wilderness. While the Forest Service acknowledges the controversy surrounding this issue, the FEIS established that environmental impacts associated with alternative 4 could be minimized with the mitigating measures we have developed. Alternative 4 represents a combination of operational components and mitigating measures that minimize the potential impacts of control in wilderness.

### Regulations and Policy

Department of Agriculture regulations and Forest Service policies are based on the above list of statutes and documented in the Code of Federal Regulations and the Forest Service directives system (Forest Service Manual). Relevant regulations and policies are discussed in FEIS volume 1, chapter I, page 1-37.

Federal regulations provide the agency's general objectives for the administration of national forest wildernesses. Administration of wilderness must meet the purposes of the Wilderness Act. The agency must also fulfill any particular purpose for which a specific area was designated, "in such a manner as to preserve and protect its wilderness character" (36 CFR 293.2).

However, there are several exceptions provided in the Wilderness Act's special provisions. One of these exceptions states that, "such measures may be taken as may be necessary in the control of ... insects ... subject to such conditions as the Secretary deems desirable." Federal regulations further identify insect control as such an exception: "To the extent not limited by the Wilderness Act, subsequent legislation establishing a particular unit, or the regulations in this part, the Chief, Forest Service, may prescribe measures necessary to control fire, insects, and disease" (36 CFR, 293.3).

Although insect control is clearly authorized by law in wilderness, what has not been clear is when it shall be employed. The statute, Federal regulations and the agency's policies do not articulate the circumstances where insect control in wilderness is appropriate. Forest Service policy does provide for a case by case decision on pest control in wilderness. There is no previous use of this provision to help define its proper scope. SPB control is the first instance of insect control within statutory wilderness by the agency.

On January 14, 1987, Judge Gerhard Gesell of the U.S. District Court, District of Columbia, advised that, with regard to SPB control as practiced by the Forest Service, "only a clear necessity" for



disrupting the natural processes in wilderness could justify such actions. The court further noted that, "Where such actions are shown to contravene wilderness values guaranteed by the Wilderness Act, then the Secretary must, when challenged, justify them by demonstrating they are necessary to effectively control the threatened outside harm that prompts the action being taken." (Exhibit 1, pages 5 and 6).

Two purposes can be cited for SPB control in wilderness: (1) protection of forest resources on lands adjoining wilderness, and (2) protection of RCW colony sites within the wildernesses. Both purposes have surfaced as issues in the FEIS.

The agency's general objective, set out in the Forest Service Manual (FSM 2324.11) is to allow indigenous insects to perform, as nearly as possible, their natural ecological role within wilderness. The same policy requires the agency to protect the scientific value of observing the effects of insects and diseases on ecosystems and identifying genetically-resistant plant species.

The objectives also include the control of insect outbreaks that threaten adjacent lands or resources. The Forest Service Manual states more specific policy: insect outbreaks are not to be controlled "unless it is necessary to prevent unacceptable damage to resources on adjacent lands" (FSM 2324.11).

Endangered species protection is not stated as a purpose for the agency's insect-control policy in wilderness. Until recently, insects, a natural component of an ecosystem, had not been considered a threat to an endangered species. However, in the situation involving an SPB outbreak, the Endangered Species Act imposes duties on the agency which must be considered in an insect-control program. The agency must not jeopardize the continued existence of the red-cockaded woodpecker (16 U.S.C. 1538); additionally, the Agency must "seek to conserve endangered species" [16 U.S.C. 1531 (c)]. Federal agencies are also directed to utilize their authorities in furtherance of the conservation purposes of the Act. Furthermore, programs for the conservation of endangered species are to be undertaken [16 U.S.C. 1636 (a)].

Any proposed action that "may affect" a threatened or endangered species or its habitat must be reviewed by the USDI Fish & Wildlife Service. As principal administrator of the Act, the FWS, in formal consultation requested by the Forest Service under section 7 of the Endangered Species Act, issued a biological opinion on February 15, 1985, for the RCW Chapter of the Wildlife Habitat Management Handbook. This chapter includes SPB control in the general forest area. The opinion stated that SPB control conducted according to Forest Service guidelines would not jeopardize the RCW. (The FWS Opinion is reproduced in FEIS volume 3, appendix F, page F-23.) The Forest Service subsequently initiated formal consultation with the FWS on the EIS alternatives when the draft EIS was issued. A nonjeopardy opinion regarding alternative 4 was received November 12, 1986 (see FEIS volume 3, appendix F, page F-31). However, no opinion was rendered for alternative 2 under which the Forest Service would take no action in

wilderness to suppress SPB. Because I felt the FWS opinion on our not protecting the RCW in wilderness was vital to my decision, the Forest Service requested formal consultation on alternative 2 (see FEIS volume 3, appendix F, page F-35).

The FWS biological opinion on alternative 2, dated December 12, 1986, (see FEIS volume 3, appendix F, page F-36) states that taking no action in wildernesses to protect the essential RCW colonies from SPB is likely to jeopardize the continued existence of the RCW. The opinion defines essential colonies as:

1. Colonies not located on the periphery of the species range and,
2. Colonies located where viable population levels have not been met in the general forest area surrounding the wildernesses, according to the RCW Recovery Plan.

In the opinion of the FWS, each essential colony is necessary to the recovery of the species and should be protected (see FEIS volume 3, appendix F, page F-38). Sixteen colonies are considered essential in the 69 wildernesses of the Southern Region. Five Texas wildernesses contain 15 colonies and one colony is located in the Sheep Ridge Wilderness on the Croatan National Forest in North Carolina.

The jeopardy opinion on alternative 2 states, "that taking no action in wildernesses to control the SPB is likely to jeopardize the continued existence of the RCW". It is the policy of the Forest Service (FSM 2670), when it receives such opinions, to follow the advice of the FWS concerning actions that would threaten the species, or the Chief will seek an exemption pursuant to 16 USC 1536 (g). In the case of the RCW, the Forest Service will actively protect all essential colonies and will not seek an exemption. Thus, with the jeopardy opinion, alternatives 1 and 2 cannot be implemented without the risk of jeopardizing the existence of the 16 essential RCW colonies in wilderness.

#### Response to Issues and Concerns

None of the proposed alternatives fully resolves all of the identified issues and concerns raised during the scoping process. The analysis of each alternative in the FEIS does address each major issue:

1. Impact on RCW in wildernesses. Alternatives 1 and 2 could jeopardize the species because colonies considered essential to recovery of the species will not be protected, therefore risking a violation of the Endangered Species Act. Alternatives 3 through 6 are not likely to jeopardize the species since action would be taken to protect any essential colonies. Alternative 6 offers the most protection for RCW habitat.
2. Impact on wilderness. Alternatives 1 and 2 would comply best with the Wilderness Act's provisions to preserve natural conditions and wilderness attributes. These alternatives would allow natural ecosystem processes to operate as freely as possible because under



no circumstances would action be taken in wilderness to suppress SPB. Alternatives 3 through 5 provide the option to control SPB in wilderness. The restricted use of this option and mitigating measures designed to reduce the evidence of control would minimize the impacts of these alternatives on wilderness. Alternative 6, even with mitigation and constraints, would have the most severe impacts on wilderness attributes.

3. Effectiveness of control techniques. This would not pertain to alternative 1 and only to the general forest area under alternative 2. Alternatives 3 through 6 would permit control action to be taken on SPB spots in wilderness. Effectiveness of control would vary with the severity of the outbreak, the technique selected and the mitigation measures under which the technique is applied.

Four aspects of SPB control effectiveness have been identified as concerns because of incomplete or unavailable information. The Forest Service has determined that information is lacking regarding these concerns and the means of obtaining this information is unknown or involves exorbitant costs. Therefore, in order to make a reasoned choice among the alternatives, I have followed the current specific guidelines set forth in CEQ 40 CFR 1502.22 (51 FED. REG. 15618 (1986)) concerning incomplete or unavailable information (see FEIS volume 1, chapter II, Effectiveness of Control, page 2-17). The concerns deal with the effects of SPB control on:

- a. Spot expansion - There are no statistically designed and replicated studies establishing that SPB control methods stop spot expansion. The SPB control methods discussed in the FEIS are based on a body of information and applied experience gained by Forest Service, State forestry agency, industrial, and non-industrial land managers in SPB control over many years. These control methods were used to treat 16,578 SPB spots on national forests during 1985 and 1986. They were 86 percent successful in general forest area and 65 percent successful in wilderness with initial treatment (see FEIS volume 3, appendix B, pages B-1 to B-4). Treatment was not considered to be successful if the spot had a breakout. A majority of the breakouts that did occur were controlled with one additional treatment. With this experience regarding the success rate of a one-time application of these control techniques, I believe that the empirical data supporting control effectiveness are adequate. With these field records documenting the actual success of these techniques, I believe that I can adequately assess the impacts and make a reasoned choice among the alternatives regarding effectiveness of controlling spot expansion.
- b. Spot proliferation - Several entomologists responding to the draft EIS and in testimony before a Congressional Oversight Hearing held March 18, 1986 on control of SPB in wilderness provided opinions that control of individual SPB spots aggravates the outbreak by fostering spot proliferation.

However, these individuals did not provide any data to support their opinions. To my knowledge, the data in the Billings-Pase Study are the only scientific information available regarding the effects of SPB control on proliferation. The analysis of the Billings-Pase data discussed in appendix B and summarized in FEIS volume 1, chapter II, shows that some spot proliferation is associated with controlled spots. However, more than twice as many new spots were associated with uncontrolled, active spots. I believe the analysis provides enough information to evaluate the impacts and the effects of control on proliferation in order to make a reasoned choice among alternatives.

- c. Accelerated spot growth - As with proliferation, there were differing opinions in the scientific community regarding the effects of control on accelerated spot growth. I know of no data or information regarding spot growth acceleration other than what has been presented in FEIS volume 3, appendix B. The information in appendix B shows that for the assumptions and variables analyzed, either significantly high levels of control-caused spot proliferation, or accelerated growth of near-by spots, must occur to render control ineffective. The analysis indicated that the levels of accelerated growth of nearby spots must increase fourfold for control to be ineffective. Such high levels of accelerated spot growth have not been reported in the scientific literature or observed by pest management specialists or resource managers. I believe that the analysis presented in appendix B provides enough information to permit a reasoned choice among alternatives regarding the possible effects of control on accelerated spot growth.
- d. RCW colony protection - Intensive management for the perpetuation of RCW takes place on southern national forests. We know SPB can destroy RCW colony sites and foraging areas. Disturbance from control activities may also affect colonies and destroy foraging areas. However, we have historical data to indicate that SPB control does result in successful preservation of RCW colonies (see FEIS volume 1, chapter II, Effectiveness of Control, page 2-19, and FEIS volume 3, appendix F). Protection of RCW colonies from SPB does not lend itself to controlled experimentation since permitting the loss of a single essential colony would be unacceptable. The Forest Service coordinates closely with the FWS regarding this and other threatened and endangered species. I must rely on the existing available information which indicates that control, when properly applied, can protect colony sites and foraging areas and preserve viable colonies. Therefore, I have chosen to implement an alternative that provides protection of essential RCW colony sites and foraging areas from SPB-caused damage.
- e. Areawide control - There were concerns expressed by the public about the effects of control on areawide SPB populations. SPB



spots are distributed throughout the forest and are influenced by many factors, including forest conditions, weather, and beetle population density. Practical methods do not exist for treating the entire SPB population within a given locality. The alternatives considered were evaluated against a specific criterion regarding SPB control: the control method must limit the amount of tree mortality caused by SPB spot growth. We are unable to determine whether our control methods improve the areawide situation. However, given the evidence that individual spots are successfully treated, and the absence of evidence that spot treatments make the areawide situation worse, the Forest Service concludes that the net effect of the SPB control program is positive.

4. Proper application of control techniques. Under alternative 1, no control action would be taken; alternatives 2 through 5 would permit treatment of SPB spots in the general forest area. When a SPB outbreak occurs, a change from routine forest management operating procedures is required. Additional staffing and training may be necessary in order to minimize the time between spot detection and treatment. Spots for which control is determined to be necessary would be assigned a treatment priority and treated with one of the four recommended control techniques: cut-and-remove, cut-and-leave, cut-and-hand spray, and pile-and-burn (see FEIS volume 1, chapter II, Control Techniques, page 2-2). Selection of a specific technique would be based on environmental considerations, application cost, and expected biological effectiveness for a particular infestation. I am convinced that when these techniques are applied with proper consideration for time of year, size of the SPB spot, and availability of markets, they will achieve the goal of controlling spot growth. Not all spots require control since many will go inactive before reaching a size where treatment is considered necessary. Untreated spots will be monitored regularly until they either go inactive or control is recommended. Chapter II of FEIS volume 1 discusses the control techniques and the three circumstances under which each may be applied: (1) general forest area; (2) wildernesses; and (3) near RCW colony (also see FEIS volume 3, appendix F).
5. Possible impacts to lands and resources in and adjacent to wilderness boundaries. Alternatives 1, 2 and 3 do not remove the SPB threat to adjacent landowners that have pine trees vulnerable to a SPB attack next to pine trees in wilderness. Their pines could be killed if an infestation is allowed to spread onto their land from wilderness. On an individual basis, the socio-economic effects of such losses could be unacceptable. Conversely, on an areawide or regional basis, the socio-economic effects from not suppressing the SPB in wilderness would probably be accepted. Alternatives 4 and 5 allow control action to be taken in wilderness when an infestation is: (1) located within 1/4 mile of adjacent pine lands; (2) predicted to spread onto those lands; and (3) would cause unacceptable damage to those lands based on the management objective of the owner, age and condition of the trees, values at



risk and intensity of management and use. The control decision would also be based on the estimated damage or adverse effects that would occur to the wilderness resource from control, the likelihood of control being effective, the intensity of the infestation, and site-specific conditions. The effect of a no control decision might range from no damage on adjacent lands to complete loss of the threatened pine stands. Alternative 6 would allow the most protection for adjacent lands because spots would be treated, while relatively small, throughout the wilderness.

6. Nontraditional control techniques. Many individuals suggested that the use of pheromones or systemic insecticides would be much less disruptive than the control techniques recommended in the FEIS. These nontraditional control techniques are still in experimental stages. When these techniques are shown to be environmentally safe, effective, and practical to use, the FEIS will be supplemented to include them.

#### Additional Rationale

I chose alternative 4 for the following reasons:

1. Alternatives 3, 4, 5, and 6 would provide the option to suppress SPB spots in wilderness to protect essential RCW colonies. Sixteen RCW colonies in six wildernesses are considered essential in the Southern Region. The FWS issued a biological opinion stating that taking no action in wildernesses to control SPB where essential RCW colonies are being threatened would likely jeopardize the continued existence of the RCW. Alternatives 1 and 2 would not permit protection of essential RCW colonies. I rejected alternatives 1 and 2 because I do not believe the selection of an alternative that could jeopardize the continued existence of the RCW to be appropriate. The physical impacts to the environment from control can be mitigated and will pass with time. The loss of a species cannot be mitigated and is irretrievable.
2. Alternatives 4, 5 and 6 would provide the option to suppress SPB spots in wilderness to protect adjacent lands. Protection of forest resources from any destructive agent is an important Forest Service policy. Specifically, a policy of insect control, authorized under the Wilderness Act, has been established to protect forest resources on land adjoining wilderness (Forest Service Manual chapter 2324.1). I rejected alternative 3 because it does not provide an option to suppress SPB in wilderness to protect adjacent lands.
3. Alternative 6 was rejected because it would have the most direct, indirect, and cumulative impacts on wilderness. Under alternative 6, a site-specific analysis would be done, but emphasis would be placed on the biological evaluation that determines the intensity of the spot. If a spot anywhere in wilderness was predicted to exceed 10 active trees, then the spot would be controlled as soon as possible. The impacts of the control action would be mitigated

as much as possible, but I do not feel this alternative to be as desirable as alternatives 4 or 5 for protecting wilderness values.

4. I rejected alternative 5 because it would impact wilderness more than alternative 4. Suppressing SPB to protect all adjacent lands would cause more impact and disturbance in the wilderness. I am not implying that nonwilderness Federal lands are any less important or valuable. I believe we can minimize the impacts on these lands through intensive forest management. We can use silvicultural techniques on Federal lands adjacent to wilderness so that productivity can be maintained and the susceptibility to SPB attack lowered. General direction pertaining to the management of these areas is found in FEIS volume 1, chapter II, page 2-38.

I chose alternative 4 because I believe it offers the best balance among the issues and comments from the public who provided input to the FEIS. It also applies our "minimum tool" philosophy when SPB control becomes necessary in wilderness (Forest Service Manual chapter 2320.2). By "minimum tool" we mean the action having the least potential disrupting effect on the wilderness environment and character. We apply this philosophy for all management in wilderness to preserve its character and reduce the impacts or evidence of management. I believe alternative 4 applies the "minimum tool" needed to meet these objectives because:

1. The area in wilderness where control would be considered is restricted.
2. The decision regarding each spot, when control is considered, will have the benefit of a documented site-specific analysis that assesses the impacts and resource losses with and without control. The analysis will also consider the likelihood of control success given the site-specific conditions and modifications to the control techniques for use in wilderness.
3. Control techniques have been constrained and modified for wilderness use to reduce or mitigate impacts while maintaining the recommended implementation guidelines for each technique.

The susceptibility of State and private lands adjacent to wilderness will likely be reduced as a result of implementing alternative 4 since this Record of Decision makes it clear that there would be circumstances under which no control action would be taken in wilderness to protect adjacent lands. Adjacent landowners would be aware of the risk of maintaining highly SPB-susceptible pine on their land adjacent to highly susceptible pine in wilderness and should be motivated to reduce that risk. The Forest Service will work with the appropriate State forestry agencies to encourage these landowners to prevent potential losses. Impacts can be avoided or reduced through proper forest management techniques. For example, utilization of a hardwood buffer to prevent spot spread from wilderness would further reduce the need for control in wilderness.



Forest Service Response to U.S. District Court, District of Columbia

On January 14, 1987, the Federal District Court for the District of Columbia informed the parties in Sierra Club v. Lyng, (Civ. No. 85-2226) that it would rule upon the lawfulness of whatever control program is decided upon after completion of the NEPA process. The court, however, construed the insect control provision of the Wilderness Act, 16 U.S.C. 1133(d)(1), and analyzed past Forest Service control in light of that provision. In doing so the court provided guidance on the showing that must be made if a control program in wilderness is to be ruled lawful under its interpretation of 16 U.S.C. 1133(d)(1). The court's Memorandum is appended to this Record of Decision as exhibit 1.

Focusing upon the protection of non-wilderness pine stands, the court found that southern pine beetle control for that purpose is not consistent with the overall intent of the Wilderness Act that wildernesses are to be managed to protect wilderness values. The court acknowledged that it may be lawful to affect wilderness by insect control measures done to protect nonwilderness resources. It advised, however, that "[w]hen such actions are shown to contravene wilderness values guaranteed by the Wilderness Act, . . . then the Secretary must, when challenged, justify them by demonstrating they are necessary to effectively control the threatened outside harm that prompts the action being taken." (Exhibit 1, pages 5 and 6).

From the court's commentary on the the Forest Service's past SPB control actions in wilderness, a number of criteria can be ascertained:

1. Wilderness SPB control must be shown necessary to control the presence of the SPB in neighboring forests and must be more than "marginally effective." (Exhibit 1, pages 6 and 7).
2. The tendency of SPB to move out of wildernesses must be shown. (Exhibit 1, page 7).
3. It also must be shown whether adjacent lands, where the beetles are already present, "could be managed with less effective controls in the absence of accompanying wilderness authority." (Exhibit 1, page 7).
4. Alternative courses of action must be weighed. (Exhibit 1, page 7).
5. Additionally, the court suggests "that the solution of the [SPB] problem may be long-term, dependent for its ultimate efficacy upon further research and scientific study." Also over the long term, the court suggests, as the SPB kill the mature pines in wilderness the possibility of wilderness outbreaks infecting neighboring areas will lessen. The unspoken question of the court is whether this no-action policy might in the long run be the most effective approach to the SPB problem where wilderness is concerned. (Exhibit 1, pages 6 and 7).



6. Furthermore, the court advised that decisions to control or not to control may best be made on a wilderness or case by case basis. (Exhibit 1, pages 7 and 8).
7. With respect to control work done to protect the RCW, the court recognized that where control would be desirable for that purpose such action would be minor, due to the very few woodpecker habitats in these areas. The court advised that such control could be addressed in specific terms along the lines suggested by the preliminary injunction of July 31, 1985 (referenced on page 3 of this ROD). (Exhibit 1, page 4).

With this Record of Decision the Forest Service has completed the NEPA process on the proposal to establish a southern pine beetle control program in wilderness (as explained on page 13 of this ROD, more NEPA analysis will be required before decisions are made at a more specific level, but for the purpose of deciding whether or not to implement a SPB program, this ROD completes the process). The decision, as explained in detail on pages 11-14 of this Record of Decision, is to allow southern pine beetle control in wilderness for two purposes: preventing unacceptable damage from infestations originating in wilderness to pines on adjacent State, private, and Federal lands with high-value forest resources other than commercial timber; and protecting essential RCW colonies. What follows is consideration of this decision in light of the court's memorandum.

1. With regard to a showing that wilderness control is necessary to control the presence of the SPB in neighboring forests, and that such control will be more than "marginally effective," I am confident that control will not be taken unless there is a threat to adjacent state, private, and Federal lands having high value forest resources. As acknowledged in the FEIS (volume 1, chapter III, page 3-19) and this ROD, page 19, under Areawide control, neither the Forest Service nor any other party can suppress a SPB population over a wide area. This does not make control of individual infestations futile, however. Individual infestations can cause considerable damage (see FEIS volume 1, chapter I, Case Studies, page 1-15) and stopping such infestations can be of significant benefit to neighboring landowners. This is recognized in this Record of Decision by the condition that unacceptable damage to the neighboring landholder must be likely before a decision can be made on whether or not to control an infestation. As set forth on page 12 of this Record of Decision, I am requiring that where an infestation is within 1/4 mile of susceptible pines outside a wilderness boundary, the spot growth model shall be used to make certain that the infestation is truly a threat to the nonwilderness resource. Further, there cannot be control without consideration of the severity of the losses on the landholder affected (see page 13 of this Record of Decision).

By this decision I am also assuring that any control undertaken has a high likelihood of being successful. Data from October 1, 1984 through September 30, 1985, show a 61% rate of success for

controlling infestations in seven wildernesses with single treatments. It must be recognized that those infestations needing additional treatment usually are stopped with a second treatment (see FEIS volume I, chapter II, page 2-27). Whether one treatment or more was needed for each infestation, the data also show that except in the Kisatchie Hills where there was an extremely aggressive outbreak during the summer of 1985, (see FEIS volume 1, chapter I, page 1-24 for the Kisatchie Hills case history), wilderness control that year was highly successful in meeting the objective of preventing infestations from reaching nonwilderness resources. The Forest Service did not use a spot growth model in Fiscal Year 1985, but as the FEIS shows in volume 1, chapter IV, pages 4-40 and 4-41, if we apply the model to infestations treated within 1/4 mile of wilderness boundaries that year, we find twenty-six of those infestations would have expanded onto adjacent private lands. All but one of these infestations were controlled before they could reach the adjacent lands (FEIS volume 1, chapter IV, page 4-42).

From October 1, 1985, through September 30, 1986, fewer infestations in six wildernesses were treated to protect adjacent lands, with a success rate of 84 percent (see FEIS volume 3, appendix B, page B-5). Again, it must be remembered that most infestations not controlled with single treatments were successfully stopped with one additional treatment.

I have, in this decision, placed conditions on taking any control action, as described on pages 11-14 of this Record of Decision. These conditions will ensure that a conservative approach will be taken when a decision to control or not to control is made. A decision to control cannot be made unless a reasonable expectation exists that the objective can be accomplished. In the future, the conditions that must be met before a decision is made to control or not to control will cause a manager not to attempt control of an infestation unless successful control is expected (factors considered are listed on page 13 of this ROD). A decision to control an infestation would be made only after consideration of these factors assures the manager of success in meeting the objective.

2. As for the evidence of the tendency of SPB to move out of wilderness, pages 1-15 through 1-26 (see FEIS volume 1, chapter I, "Case Studies") describe incidents of the spread of infestations from old growth pine forests in the Kisatchie Hills, a designated wilderness; the Four Notch area, a further planning area, and Big Thicket National Preserve. Note particularly the maps of the Four Notch, showing the growth of infestations over time. The spot growth model will be used for the infestations within 1/4 mile of pine stands on adjacent State, private lands or Federal lands with high-value forest resources and moving toward such stands. This model has proven to be reliable in predicting the additional number of trees killed in an infestation (see FEIS volume 3, appendix D, page D-2) so that we will be confident that only when adjacent lands are threatened can a decision be made to control.



3. With respect to the possibility of effectively protecting the State, private and high-value Federal forest resources without a wilderness control program, it must be emphasized that in an outbreak situation preventive measures are of future benefit and cannot stop current infestations from spreading (see FEIS volume 1, chapter II, page 2-1 and response 3 to comment letter 326, at FEIS volume 2, chapter VII, page 7-639). A vigorous control program outside wilderness will certainly aid in the protection of these pine stands from other directions, but cannot lessen a threat coming from a wilderness. Therefore, if an infestation is spreading toward adjacent lands from wilderness, the only reliable way to stop it is do control by the methods employed by the Forest Service.
4. In this decision, I recognize the need to weigh alternatives. There will always be the option of doing no control. In fact, the general policy will be not to control SPB in wilderness. This decision does not require SPB control even in those portions of wilderness where it would be allowed. As set out in the description of the decision on pages 11-14 of this ROD, considerable analysis will be done and judgments must be made before action in particular instances will be decided upon. When consideration is made whether or not to control, the alternative control methods are those traditionally used and described in FEIS volume 1, chapter II, pages 2-2 through 2-13. Research is being done on other control methods, such as the use of attractants and inhibitors, but they have yet to be proven effective and practical (see FEIS volume 1, chapter II, page 2-21).
5. Regarding the long-term solution of the SPB problem, it is true that with more study and research we shall learn more about the SPB and its impact on the forest with and without control. I believe, however, that the Forest Service has sufficient experience at controlling SPB infestations and this decision provides sufficient constraints for implementing the program established in this decision. In regards to the suggestion that to take no action in wilderness over the long term will solve the SPB problem, as no pine would remain in wilderness to be infested, it must first be emphasized that except within 1/4 mile of the pine stands on adjacent State, private or high-value Federal resources, or in those instances where essential RCW colonies are threatened, no control may occur in wilderness. For the most part, therefore, infestations will be allowed to develop and affect natural changes of the wilderness vegetation. It must also be emphasized that with or without control, changes to the vegetation does not necessarily mean that hardwoods will replace the pine stands killed by SPB. The type of forest or vegetation resulting from a SPB infestation(s) is dependent on many factors, but the two most critical factors are species composition and infestation size. Other important factors are site growing capacity (site index) and rainfall. The various combinations of these factors could result in a predominant pine stand, a predominant hardwood stand or a mixed pine/hardwood stand. The actual prediction of future



conditions resulting from a SPB infestation can only be made during the site-specific analysis. For example, in small spots surrounded by pine, in most cases, the predominant successional species will be pine. When a large spot occurs and very few pine remain within the spot, then a stand of hardwoods is more likely. In the same situation, if sufficient pine remain as a seed source, a predominant pine stand would probably occur.

6. I agree that general decisions to control or not control in wilderness should not be made. Every infestation on every piece of ground will be different. The resources to be affected will be different. The effect of threatened losses to each landowner will be different. These are site-specific situations which can only be analyzed, and decided upon, on a site-specific basis. This decision only established a program which allows a control decision to be made after consideration of the factors listed on pages 11-14 of this Record of Decision. Either to initiate SPB control, or take no action without knowing about the particular situations would be an arbitrary and capricious decision on my part. This decision instead allows, within carefully established conditions, decisions to be made at the level where the specific facts are known and thus the most reasonable judgments can be made.
7. With respect to control done to protect the RCW, the conditions identified on pages 11-14 of this Record of Decision are along the lines of the requirements of the court's preliminary injunction of July 31, 1985 (see FEIS volume 1, chapter I, page 1-5). Any control done to protect RCW colony sites and foraging areas must be done in accordance with the Forest Service's Wildlife Habitat Management Handbook chapter on the RCW, as the preliminary injunction required. Although the Fish and Wildlife Service need not be notified before each control action, I believe that the Fish and Wildlife Service's "non-jeopardy" opinion on the Forest Service's control practices and on the preferred alternative in the EIS, which I have selected in this Record of Decision, along with Fish & Wildlife Service's "jeopardy" opinion on the "no control action alternative in wilderness" alternative in the EIS with respect to essential RCW colonies, provide sufficient oversight and involvement by the Fish and Wildlife Service.

Section 4(d)(1) of the Wilderness Act (16 U.S.C. 1133(d)(1)) provides that "such measures may be taken as may be necessary in the control of fire, insects, and disease, subject to such conditions the Secretary deems desirable." I believe that this decision is consistent with this provision of the Act. SPB can be a very destructive pest, and cause great economic damage. It may be necessary, given the potential damage, to control wilderness infestations and prevent their spread to adjacent lands or into RCW sites and foraging areas. Control cannot be taken unless success is predicted. There cannot be absolute assurance, however, that a given action will always have the intended results. There are too many variables in the biological world for actions always to have exactly the same effect. I believe, however, that this was recognized in the drafting of this special provision of the Act. Measures may be taken as may be necessary. To have required a

guarantee of total effectiveness would have been to ask the impossible, and made for a totally useless provision. I believe this decision, requiring careful consideration of all important factors, not the least of which is the impact on wilderness values, establishes a program such as Congress intended in this provision.

Changes under this decision from the existing SPB control program procedures will mean that:

1. The policy will be to not control SPB in wilderness unless an essential RCW colony and foraging area is threatened; or unacceptable damage is predicted to occur on adjacent State and private lands; or Federal lands having high-value forest resources other than commercial timber.
2. Less control will be undertaken in wilderness because control will be allowed only within 1/4 mile of the wilderness boundary and to protect essential RCW colonies.
3. No control will be undertaken to protect commercial timber resources on adjacent Federal lands.
4. Use of the spot growth model will improve the accuracy of predicting which spots are expected to spread from the wilderness onto adjacent State and private lands, or Federal lands having high-value forest resources other than commercial timber.
5. No action will be undertaken within wildernesses unless a reasonable expectation exists that the treatment will be successful.
6. Greater forest improvement emphasis will be focused on the lands adjacent to the wildernesses to make them less susceptible to SPB attack.
7. The public will be informed when SPB control is undertaken to protect essential RCW colonies and involved in the decision to control to prevent the spread of an SPB infestation from the wilderness onto adjacent State and private lands, or Federal lands having high-value forest resources other than commercial timber. (See Exhibit 2).

## VI. MANAGEMENT REQUIREMENTS

Management requirement guidelines described in the following section were developed to resolve public issues and management concerns and to direct management practices so environmental impacts are mitigated to the greatest extent possible. These management requirements which include mitigation measures described in the FEIS volume 1, chapter II, Mitigation, Specific Mitigation Measures, pages 2-24 to 2-27, are all adopted as part of my decision.

General Forest Area

1. IPM will be used to reduce timber losses caused by SPB.
2. In pine stands adjacent to wilderness, where spot spread from wilderness is possible, priority will be given to reducing or eliminating potential losses to SPB. For example, stand densities would be lowered and rotation ages shortened to maintain or increase tree vigor.
3. Control activities within 1/2 mile of RCW colonies will conform to the guidelines set forth in the Forest Service Wildlife Habitat Management Handbook (FSH 2609.23R). Where cut and leave and cut-and-remove techniques are not feasible, and cut and hand spray is used, no standing trees will be sprayed. Pile and burn will not be used near active RCW colonies.
4. Mitigation of adverse impacts from the cut-and-remove method will be similar to mitigation measures employed during a commercial timber harvest on a national forest. The guidelines and general mitigating measures for this activity are found in the Forest Service Manual - 2430 Commercial Timber Sales. Specific guidelines and mitigating measures are found in forest plan standards and guidelines and timber sale contract clauses. Direction pertinent to similar activities on State, private, and other Federal lands may also apply.
5. When pile and burn is used to control SPB, the work will comply with the Forest Service Manual directions on air quality management for prescribed fire (Chapters 2120, Air Resource Management; 5140, Prescribed Fire; and 5150, Fuel Management). All Federal and State air pollution laws must be followed.
6. Weather conditions will be closely monitored before prescribed burning activities occur to ensure that atmospheric conditions allow for quick smoke dispersal to maintain air quality. Air quality values for Class I wildernesses and national forest lands will be protected by conducting prescribed burning under a smoke management plan.
7. Existing landscape form, line, color and texture will be used to mitigate effects on visually-sensitive areas that result from SPB control. This is accomplished by adjusting the shape of managed sites to be more natural and by feathering edge lines between disturbed and undisturbed areas. Visual effects are further mitigated by debris disposal, and by reducing the apparent size of the work site.
8. Modifications of control activities similar to those used to protect wilderness resources will also be used on other sensitive areas where existing direction in Forest Land and Resource Management Plans restricts SPB control. Examples may include wild and scenic river corridors, natural areas, or botanical areas.



9. Use existing roads or access ways whenever possible for control activities.
10. Retain selected hardwoods in an uncut or untreated state for wildlife and plant diversity.

#### Wilderness (General)

1. No SPB control action will be taken in wilderness unless an infestation threatens an essential RCW colony or occurs within 1/4 mile of susceptible host on State and private land or high value forest resources on Federal land and is predicted to spread onto that land causing unacceptable damage on that land. Infestations will be allowed to run their natural course unless the aforementioned resources are threatened.
2. No SPB control action will be taken in wilderness until a site-specific analysis of the infestation and surrounding site conditions is completed and documented. The site-specific analysis must indicate that successful control can be expected, given: (a) the intensity on the infestation; (b) the constraints applied to the control methods for use in wilderness and (c) the resources available to control the spot.
3. IPM control methods for SPB are modified for use in wilderness as follows:
  - a. Cut and Remove - use helicopter, draft animals or cable skidding from public roads, or access, to remove infested logs. In visually sensitive zones such as along hiking trails, remove entire tree if feasible or otherwise remove slash from visual zone. Helicopter flight lines will avoid trails where possible.
  - b. Cut and Leave - no modification for use in wilderness except to cut slash to lay close to the ground or remove slash if feasible in visual zones to mitigate visual impact.
  - c. Cut and hand spray - same modifications as cut-and-leave method.
  - d. Pile and burn - this method will not be used in wilderness.
4. Monitoring, ground checking and tree felling crews will travel to infestations by non-motorized methods. Only under conditions in Item 5., following, will vehicles be allowed.
5. In extenuating circumstances, such as an intense outbreak, or lack of adequate resources to implement the preceding control methods, use of motorized ground vehicles may become necessary to protect essential colony sites or adjacent lands as described under alternative 4. However, use of such to do control work in wildernesses would require complete documentation of the

extenuating circumstance and approval in advance by the Regional Forester. This deviation would be used only as a last resort when destruction of an essential RCW colony or unacceptable damage on adjacent lands is imminent.

When the use of motorized ground vehicles is permitted in wilderness by the Regional Forester, the following management requirements apply:

- a. Use only the existing roads or access ways. Limit road improvements to a standard no higher than required for safe passage of equipment and workers, and to protect the soil.
  - b. Return existing roads to as near their pre-use condition as soon as they have served their purpose.
  - c. Close all roads and access ways needed for SPB control to motorized public use. Only use associated with the control of the SPB and administrative use will be allowed.
  - d. Use fords (no structure) where possible, but only under conditions that will not visibly change physical stream characteristics. These conditions are:
    - (1) Bedrock stream bottom and lower banks.
    - (2) Rock or gravel stream bottom and lower banks.
  - e. Install temporary stream crossing structures using the largest fill materials available. Crossings will be removed completely after control operations are completed. Stream banks and bottoms will be reclaimed to approximately the original conditions.
  - f. To the greatest extent possible, schedule control activities when visitor use will be lowest.
6. All practical efforts to protect hardwoods will be made when SPB control actions are implemented. No hardwoods will be cut unless to insure the safety of crews or wilderness user.
  7. The affected and interested public will be informed or involved as appropriate in the decision to control in wilderness. (See Exhibit 2).

#### Wilderness (Protection of Essential RCW Colonies)

1. Only essential RCW colony sites and foraging area (approximately 125 acres per site) will be protected from SPB in wilderness. Essential colonies are defined by the F&WS as:
  - a. Colonies not located on the periphery of the species range and,

- b. Colonies located where viable population levels have not been met in the general forest area surrounding the wildernesses, according to the RCW Recovery Plan.
2. An essential RCW colony in wilderness must be occupied or have been occupied during the previous breeding season. Colonies having been vacated longer would not be protected in wilderness.
3. Spots located within 1/2 mile of essential colonies will be ground checked so predictions of spot growth with a SPB spot growth model can be made. Control action will only be taken on spots predicted to adversely affect the colony site and foraging area (totalling 125 acres) within the next 30 days and threatens the continued existence of the colony. If the spot is not predicted to impact the colony in 30 days, monitoring will continue until the spot warrants control under the 30-day criteria or is no longer considered a threat.
4. The management requirement under Wilderness (General) and General Forest Area and Wilderness (RCW Colony Site Protection), also apply.

#### Wilderness (Protection of Adjacent Lands)

1. Infestation must occur within 1/4 mile of susceptible host type on State and private land or high-value Federal forest resources (other than commercial timber), and be predicted to spread onto and cause unacceptable damage on these lands before control action is considered.
2. Aerial detection will be used to identify and locate for ground checking all infestations in wilderness within 1/4 mile of susceptible host on State, private or high-value Federal forest resources.
3. Infestation located within 1/4 mile of these lands will be ground checked as soon as possible (generally two days) following detection to collect data for input in a SPB spot growth model and determine the direction of spread.
4. Spot growth model predictions will be completed as soon as possible (generally three days) from ground check. Forest Pest Management personnel will provide the extent of tree kill predicted by the model. This information will be used to estimate the location and extent of damage on adjacent lands from the uncontrolled infestation.
5. A site-specific analysis will be completed and documented on each infestation predicted to impact adjacent lands prior to implementing control action. It will assess the predicted impacts to adjacent land considering landowners' management objectives, age and condition of trees and the current threat of SPB impacts from other non-wilderness sources. Direct, indirect and cumulative



impacts to the wilderness attributes and other resources will be assessed and considered equally in the control decision process.

6. The management requirements for control under Wilderness (General) and under General Forest Area and Wilderness (General) also apply.

#### General Forest Area and Wilderness (RCW Colony Site Protection)

1. Trees vacated by the SPB will not be cut or chemically treated unless necessary to insure public safety.
2. Inactive and relict cavity trees, if infested, or within a designated treatment buffer zone, may be cut to secure RCW colonies. (Requires evaluation by a Forest Service wildlife biologist.)
3. Uninfested trees within a 200-foot buffer around RCW cavity trees would not be cut or chemically treated unless such control efforts would be likely to prevent SPB infestation of cavity trees.
4. Disturbance in the colony sites will be kept to a minimum especially during the breeding season. No salvage operations will be conducted in active colony sites from March 1 through the time RCW young have fledged (approximately July-August). Control activities would be limited to the felling of trees or chemical treatment, or both, if necessary to secure the colony site during the breeding season.
5. Control activities within 1/2 mile of RCW colonies will conform to the guidelines set forth in the Forest Service Wildlife Habitat Management Handbook (FSH 2609.23R). Where cut and leave and cut-and-remove techniques are not feasible, and cut and hand spray is used, no standing trees will be sprayed. Pile and burn will not be used near active RCW colonies.

#### General Forest Area and Wilderness (General)

1. Site-specific analysis must be completed for any proposed SPB control action. This analysis will determine if a biological evaluation is necessary to determine if any threatened and endangered species or species being proposed for this status may be affected by the treatment. If the proposed treatment may affect one of these species or its habitat, consultation with the Fish & Wildlife Service is required under the Endangered Species Act. If sensitive species may be affected, coordination with the appropriate Federal or State agencies will occur. If adverse impacts could occur, the site-specific biological evaluation will identify possible mitigation measures.
2. Use control methods that will minimize soil disturbance.
3. Use of erosion control measures as soon as possible after the ground-disturbing, SPB-suppression activities are completed, to

prevent or minimize erosion, sedimentation and long-term site deterioration.

4. Cultural resource surveys and coordination before soil-disturbing activities are implemented. Site evaluation and protection will minimize disturbance of significant sites.
5. The cut-and-hand-spray technique must only be used according to general direction set forth in Forest Service Manual Chapter 2150, Pesticide-Use Management. Label instructions for insecticides registered for beetle control must be followed.
6. Standing trees will not be sprayed with insecticides.
7. Insecticides will not be used in a manner that would adversely affect threatened or endangered species.
8. The potential risk to humans and the environment will be minimized by applying insecticides only according to label instructions, Forest Service policies and other Federal regulations. Application will be supervised by a certified pesticide applicator. Areas treated with insecticide will be signed and closed to firewood collection. (See appendix C.)
9. Workers who apply insecticides will be trained to ensure minimum impacts and maximum effectiveness. Only those methods that assure proper application of insecticides on the infested tree bole would be used.
10. Riparian ecosystems that encompass floodplains and wetlands will receive appropriate protection. As a minimum, riparian areas will extend 100 feet from the edge of all perennial streams and other perennial water bodies, including lakes. Site investigations to identify riparian areas and floodplains will consider the soil and plant characteristics of the site, and will be guided by appropriate Forest Service direction and State requirements. Roads that cross riparian areas will be stabilized with rip-rap, vegetative establishment, or other appropriate methods.
11. Logging equipment will be kept out of perennial and intermittent stream channels except on approved, designated crossings. Crossings will be at right angles to the stream or riparian area.

## VII. IMPLEMENTATION

SPB control projects on Federal, State, and private lands implemented under alternative 4 will be eligible for Federal funds appropriated for insect suppression. Suppression of SPB in wildernesses in Texas, Louisiana, Arkansas and Mississippi will continue to conform to the directives of the court, except where this decision is more restrictive, until the litigation is resolved. Implementation of alternative 4 will occur with the publication of a notice in the Federal Register, except where there is litigation in Texas, Louisiana, Arkansas, and Mississippi.

The Forest Service Southern Region's Land and Resource Management Plans are amended to make them consistent with this decision. These insignificant changes to the Land and Resource Management Plans are attached as Exhibits 3-17. Amendments concerning direction for insect control for wilderness in the Land Management Plans for the National Forests in Texas, the Kisatchie National Forest in Louisiana, the Ouachita National Forest in Arkansas and the National Forests of Mississippi will not be implemented except where the amendment is more restrictive than the court's direction.

#### VIII. RIGHT TO ADMINISTRATIVE APPEAL

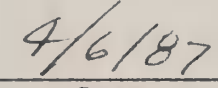
That portion of this decision pertaining to National Forest System lands is appealable, pursuant to 36 CFR 211.18(a).

Pursuant to 36 CFR 211.18(f)(3), within 5 days of receipt of a Notice of Appeal, I will transmit the Notice and a copy of this Decision to the Secretary of Agriculture for his discretionary review. The appeal will be deemed denied if the Secretary takes no action within 10 days of receiving the Notice of Appeal. Individuals or groups that are dissatisfied with any particular site-specific project on National Forest System lands may seek administrative review of that site-specific project after a site-specific decision has been made.

Notice of appeal must be in writing and submitted to:

F. Dale Robertson, Chief  
USDA, Forest Service  
P.O. Box 96090  
Washington, DC 20090-6090

  
F. Dale Robertson  
Chief

  
Date





## IX. APPENDICES

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLUMBIA

SIERRA CLUB  
and  
THE WILDERNESS SOCIETY,  
Plaintiffs,

v.

RICHARD E. LYNG, ET. AL.,  
Defendants.

Civil Action No. 85-2226

MEMORANDUM

By a complaint filed July 12, 1985, Sierra Club and the Wilderness Society have challenged the legality of a program initiated by the United States Forest Service under direction of the Secretary of Agriculture to control infestations of the Southern Pine Beetle in federally designated Wilderness Areas located in Arkansas, Louisiana and Mississippi. They claimed that the program was being conducted without first developing an environmental impact statement ("EIS"), in violation of the National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321-4361 (1982); that it violates the Endangered Species Act, 16 U.S.C. §§ 1531-1543 (1982), by harming the red-cockaded woodpecker, an endangered species which inhabits these areas; and that the extensive tree-cutting and chemical-spraying campaign involved is prohibited under Section 2 of the Wilderness Act, 16 U.S.C. §§ 1131-1136 (1982). After preliminarily enjoining the program in the three areas involved (subject only to a limited



exception allowing some cutting for the benefit of the woodpeckers) pending development of an EIS, see Sierra Club v. Block, 614 F. Supp. 488 (D.D.C. 1985), the Court now, for the second time, considers plaintiffs' long-deferred motion for summary judgment on its basic Wilderness Act claims, prompt development of an EIS having been repeatedly delayed. There has been full argument, and accompanying briefs, affidavits and documents have been considered.

Section 4(d)(1) of the Wilderness Act, 16 U.S.C. § 1133(d)(1), authorizes the Secretary of Agriculture to control insects within Wilderness Areas in the following terms: "such measures may be taken [by the Secretary] as may be necessary in the control of fire, insects, and diseases, subject to such conditions as the Secretary deems desirable." Plaintiffs' primary contention is that the Secretary is not authorized to undertake an insect control program in a designated Wilderness Area unless the Secretary can demonstrate that the program is necessary in the sense that it is effective, and that the program for the Southern Pine Beetle infestations which are under attack here must be restrained since the program is ineffective. They argue that the Wilderness Areas were being destroyed by extensive and continuing spot cutting of infestations pursuant to the Secretary's program without any appreciable success in curbing the pest and that wilderness values Congress sought to preserve as a matter of affirmative national policy were, as a consequence, being permanently injured. The complex life cycle

of the Southern Pine Beetle, an indigenous, well-known pest, has been elaborately studied and plaintiffs offered considerable data indicating the program's dubious effectiveness.

The Secretary presents both a legal and factual opposition. First, he asserts that the Court has no authority to consider the motion since Section 4(d)(1) leaves all management decisions affecting Wilderness Areas to his nonreviewable discretion. It is further suggested that since a different program may emerge with the eventual publication of the EIS the Court is being asked to issue an advisory opinion. Factually, the Secretary contends the program is effective in the sense that although continued cutting of spot infestations would be required, the program has somewhat slowed the appearance of new infestations as more and more mature pine trees are cut down and destroyed.

The Wilderness Act, as the Secretary urges, clearly places broad discretion in the Secretary to manage designated Wilderness Areas. Each area differs. There are no standards indicated for control of fire, insects or disease. Technical information and research must in the end guide the Secretary in the sensitive task of keeping nature's precarious balance within each area stable. Resolution of these decisions through litigation is surely counterindicated except upon the most explicit showing of arbitrary irresponsibility.

However, a further circumstance overhangs this particular dispute which must be considered. The Southern Pine

Beetle program is not limited to Wilderness Areas and indeed the purpose and effect of the program is solely to protect commercial timber interests and private property, including, of course, national forests in which more draconian steps can be taken to eliminate the beetle. The extensive cutting in the Wilderness Areas that was being carried out under the program until preliminarily enjoined was conducted solely to aid outside adjacent property interests, not to further wilderness interests or to further national wilderness policy.<sup>1</sup>

Both plaintiffs and the Secretary agree that Congress also intended by Section 4(d)(1) to authorize the Secretary to take actions within Wilderness Areas where necessary to control fire, insects, or disease from spreading beyond the areas and harming adjacent or neighboring private or commercial interests. The legislative history sustains this view. Plaintiffs' case therefore poses the declared national policy to preserve pristine wilderness ecology and values into sharp juxtaposition with the program's effectiveness, or lack of effectiveness, in controlling the harm being caused by pine beetles on adjacent property. Management of wilderness areas as such is not involved and the program could not be approved as a wilderness-management program.

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<sup>1</sup> To the extent any cutting may have been desirable to prevent undue harm to the red-cockaded woodpecker, such cutting would be minor due to the very few woodpecker habitats in these areas. This issue could be addressed in specific terms along the lines suggested by the Court's preliminary injunction if the program were abandoned.



Unfortunately, the material submitted on the motion provides no clear answers to the dilemma suggested. Pine beetles have a considerable range of flight and studies leave in doubt the extent to which they may migrate to or from adjacent pine land. There is no way the Court can determine from the material submitted to what extent beetle migration out of these particular Wilderness Areas into commercial timber properties may be adequately controlled under the program. Nor is it clear whether adjacent properties can be equally well controlled against beetle infestation by measures taken outside of the Wilderness Areas that would be wholly inappropriate within the Wilderness Areas.

Thus this case does not involve the management of Wilderness Areas as such. Rather, it presents a different question, one that is not fully addressed by the Act itself. That question is whether the Secretary has been given the same Section 4(d)(1) broad management discretion previously noted when he takes actions within the Wilderness Areas for the benefit of outside commercial and other private interests. This question must be answered in the negative because in a situation like this the Secretary is not managing the wilderness but acting contrary to wilderness policy for the benefit of outsiders.

A fair reading of the Wilderness Act places a burden on the Secretary affirmatively to justify his actions under these circumstances. Where such actions are shown to contravene wilderness values guaranteed by the Wilderness Act, as they do here, then the Secretary must, when challenged, justify them by

demonstrating they are necessary to effectively control the threatened outside harm that prompts the action being taken. Here the Secretary has not addressed this affirmative burden.

Plaintiffs have amply demonstrated that the Southern Pine Beetle program as carried out in these three Wilderness Areas was wholly antithetical to the wilderness policy established by Congress.

The destruction of many acres of pine trees by chain sawing, and chemical spraying accompanied by noise and personnel in a continuing process unlimited in scope, is hardly consonant with preservation and protection of these areas in their natural state. These are delicate, sensitive places where the often mysterious and unpredictable process of nature were to be preserved for the study and enjoyment of mankind. Congress directed that man must tread lightly in these areas, in awe and with respect. Ruthless intrusion in disregard for these values was condemned as a matter of national policy. While many facts remain unclear, the record before the Court suggests that within Wilderness Areas, as mature pines are destroyed by the beetle there will be less and less possibility of outbreaks infecting neighboring areas. Only a clear necessity for upsetting the equilibrium of the ecology could justify this highly injurious, semi-experimental venture of limited effectiveness.

The Secretary has failed to demonstrate that the Southern Pine Beetle program as carried out in the three Wilderness Areas is necessary to control the presence of that pest in neighboring

pine forests or that it has in any way been more than marginally effective in doing so. There is little evidence relating to the effect of the program on the beetle's tendency, if any, to move out of the Wilderness Areas. Conversely, the Court has not received any material indicating whether adjacent pine land, which has been already infected by the beetle, could be managed with less effective controls in the absence of the accompanying Wilderness authority. Nor is the Secretary's weighing of alternatives apparent. The record strongly suggests that the beetle cannot be eradicated and the solution of the problem is long-term, dependent for its ultimate efficacy upon further research and scientific study.

While the Secretary's program covers the South, this particular case only concerns a limited aspect. Serious problems exist in other southern regions and indeed the United States District Court for the Eastern District of Texas has before it a challenge to the Southern Pine Beetle program as it affects five Wilderness Areas in Texas, see Sierra Club v. Lyng, No L-85-69-CA (E.D. Tex.). That Court has also been awaiting the EIS. The problems in different regions in all probability vary and what may be a necessity in one Wilderness Area, or effective there, may not be so in another. The very generality of the Secretary's approach suggests inadequate sensitivity to his wilderness duties.

Because this Court's analysis raises issues not fully addressed in the papers and because it suggests a need to



IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLUMBIA

SIERRA CLUB  
and  
THE WILDERNESS SOCIETY

Plaintiffs,

v.

RICHARD E. LYNG, ET AL.,

Defendants.

Civil Action No. 85-2226

ORDER

Upon consideration of plaintiffs' motion for partial summary judgment; the briefs, supplemental briefs, affidavits and documents filed; and full argument by the parties, it is hereby

ORDERED that final decision of the motion is deferred until after publication of the final Environmental Impact Statement on the Southern Pine Beetle program challenged in this case; and it is further

ORDERED that the parties file further papers on the motion within 30 days of the publication of that document with emphasis on the Secretary of Agriculture's burdens in justifying the program, as explicated in the accompanying memorandum filed herewith; and it is further

ORDERED that pending final decision of the motion the preliminary injunction entered by this Court on July 31, 1985 shall remain in effect.

  
UNITED STATES DISTRICT JUDGE

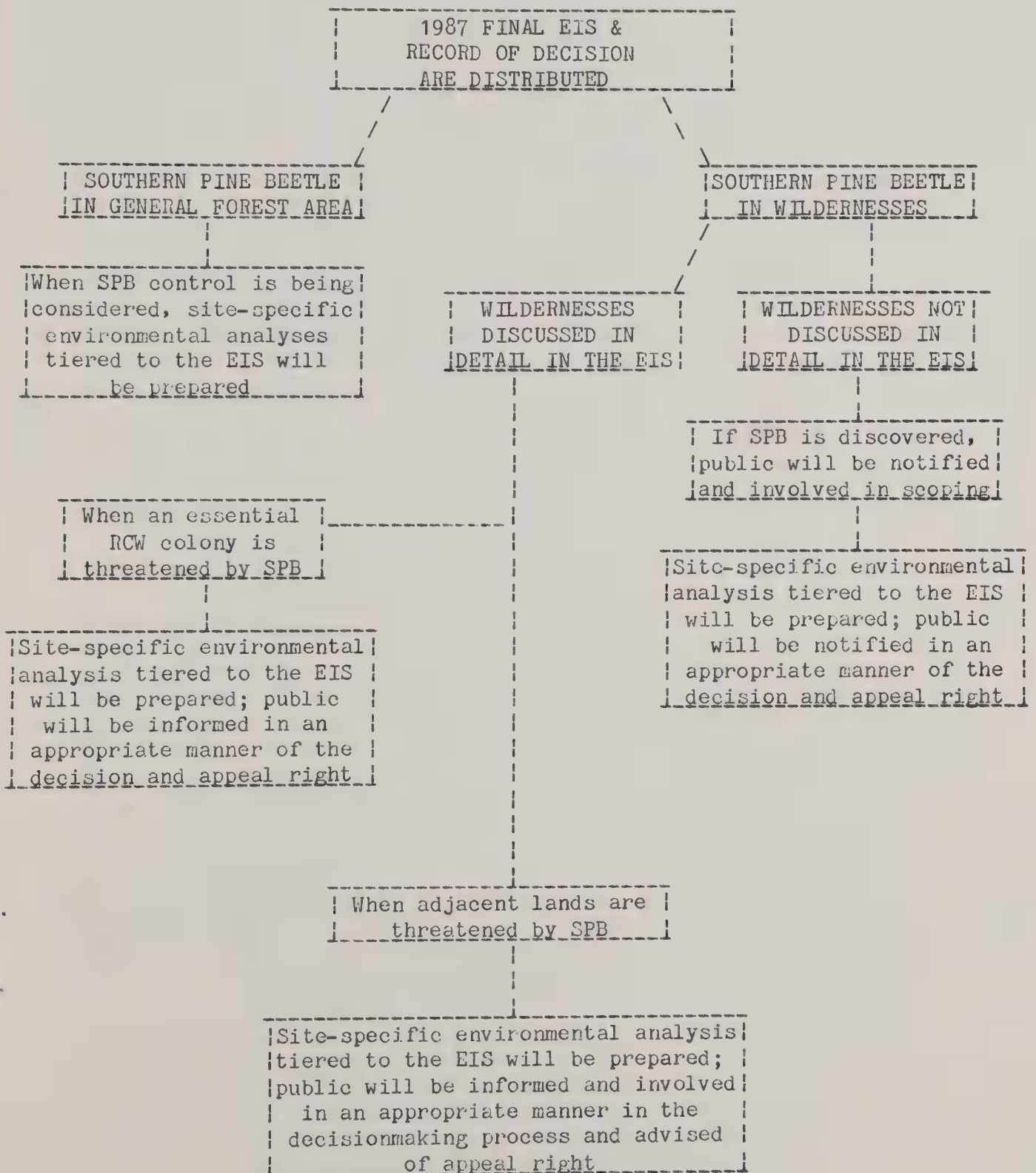
January 14, 1987.

particularize any approach to the Southern Pine Beetle program in terms of each Wilderness Area, area by area, the Court has concluded that final resolution of the motion can most appropriately await the EIS. The Court directs the parties to file further papers in support of or opposition to the motion within 30 days of the publication of the final EIS with emphasis upon the Secretary's burdens as set out herein in the light of whatever Southern Pine Beetle program emerges in the EIS. In the meantime, the preliminary injunction remains in effect and final action on the motion will be held in abeyance. An appropriate Order is filed herewith.

  
UNITED STATES DISTRICT JUDGE

January 14 , 1987.

NEPA DOCUMENTATION AND PUBLIC INVOLVEMENT  
FOR THE SOUTHERN PINE BEETLE CONTROL PROGRAM







National Forests in Alabama  
Land and Resource Management Plan

Amendment #1  
April 1987

Chapter IV, FOREST-WIDE STANDARDS & GUIDELINES

Page IV-17      Item 12, Integrated Pest Management - Add the following management requirement from the Record of Decision for the Suppression of the Southern Pine Beetle (ROD/SPB), Section VI, MANAGEMENT REQUIREMENTS: General Forest Area, Items 1-7, 9, 10; and General Forest Area and Wilderness (General) to Sub-item "a".

Chapter IV, MANAGEMENT AREA 1 - Standards and Guidelines

Page IV-56      Item 6. Add: "For SPB follow the management requirements (except for General Forest Area) in the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS.

Chapter IV, MANAGEMENT AREA 2 - Standards and Guidelines

Page IV-61      Item 12. Add "For SPB follow the management requirements (except for General Forest Area) in the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS.

Chapter IV, MANAGEMENT AREA 3 - Standards and Guidelines

Page IV-64      Item 14 - Delete: "Salvage of insect-infested timber will be limited to areas above the bluff lines."

Item 15 - Add: "For SPB follow the following management requirement from the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: General Forest Area, Item 8.

Chapter IV, MANAGEMENT AREA 4 - Standards and Guidelines

Page IV-65      Item 4 - Add: "For SPB follow the following management requirement from the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: General Forest Area, Item 8.

Chapter IV, MANAGEMENT AREA 5 - Standards and Guidelines

Page IV-67      Item 8 - Add: "For SPB follow the following management requirement from the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: General Forest Area, Item 8.

Chapter IV, MANAGEMENT AREA 10 - Standards and Guidelines

Page IV-86      Item 14 - Add "For SPB follow the following management requirement in the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: General Forest Area and Wilderness (RCW Colony Site Protection)."

This amendment is not a significant change in the National Forests in Alabama LRMP. The determination that this is a nonsignificant amendment is made in accordance with 36 CFR 219.10(f) and Interim Directive to Chapter 1920 Forest Service Manual (52 Fed. Reg. 4632, February 13, 1987). This amendment does not alter the multiple-use goals and objectives for long-term land and resource management. This amendment adds more specific direction and standards and guidelines for southern pine beetle (SPB) suppression in the general Forest area and wilderness. The amendment does not involve an increase or decrease in resource demands. In summary, this direction for southern pine beetle suppression does not alter the long-term relationship between levels of multiple-use goods and services projected by the LRMP.

The NEPA analysis for this change of direction has been documented in the Draft and Final EIS for Suppression of the Southern Pine Beetle. The EIS is available for review at the Forest Supervisor's office.



Chattahoochee-Oconee National Forests  
Land and Resource Management Plan

Amendment #2

Chapter 4. Management Direction -

- Page 4-2. Add the following sentence to Goal Number 16: "Modify IPM for use in wilderness areas." [Refer to the Record of Decision for the Suppression of the Southern Pine Beetle (ROD/SPB), Section VI, MANAGEMENT REQUIREMENTS: Wilderness (General), Item 3.

Chapter 4. Forest-Wide Standards and Guidelines -

- Page 4-40. Protection - Insect and Disease - Add the management requirements in the Record of Decision for the Suppression of the Southern Pine Beetle (ROD/SPB), Section VI, MANAGEMENT REQUIREMENTS: General Forest Area, Items 2-7, 9, 10, and General Forest Area and Wilderness (General).

Chapter 4. Management Area 1: Existing Wilderness Areas -

- Page 4-52. Insect and Disease Control, 1. - Add: "except for SPB infestations."

Insect and Disease Control, add new standards - See the requirements in the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: Wilderness (General) and Wilderness (Protection of Adjacent Lands) for wilderness areas.

Chapter 4. Management Area 2: Proposed RARE II Wilderness Study Areas -

- Page 4-55. Insect and Disease Control, 1. - Add: "except for SPB infestations."

Insect and Disease Control, add new standards - See requirements in the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: Wilderness (General) and Wilderness (Protection of Adjacent Lands) for wilderness areas.

Chapter 4. Management Area 3: Chattooga Wild and Scenic River -

- Page 4-75. Protection - Insect and Disease - Add the requirement in the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: General Forest Area, Item 8.

Chapter 4. Management Area 10: Research Natural Areas (RNA) -

Page 4-82. Protection - Insect and Disease - Add the requirement in the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: General Forest Area, Item 8.

This amendment is not a significant change in the Chattahoochee-Oconee LRMP. The determination that this is a nonsignificant amendment is made in accordance with 36 CFR 219.10(f) and Interim Directive to Chapter 1920 Forest Service Manual (52 Fed. Reg. 4632, February 13, 1987). This amendment does not alter the multiple-use goals and objectives for long-term land and resource management. This amendment adds more specific direction and standards and guidelines for southern pine beetle (SPB) suppression in the general Forest area and wilderness. The amendment does not involve an increase or decrease in resource demands. In summary, this direction for southern pine beetle suppression does not alter the long-term relationship between levels of multiple-use goods and services projected by the LRMP.

The NEPA analysis for this change of direction has been documented in the Draft and Final EIS for Suppression of the Southern Pine Beetle. The EIS is available for review at the Forest Supervisor's office.

This amendment is subject to administrative appeal under 36 CFR 211.18.

Cherokee National Forest  
Land and Resource Management Plan

Amendment #1  
April 1987

Chapter IV. Forest-Wide Management Requirements -

Page IV-49 Forest Pest Management - STANDARDS AND GUIDELINES - Add the following management requirements from the Record of Decision for the Suppression of the Southern Pine Beetle (ROD/SPB), Section VI, MANAGEMENT REQUIREMENTS: General Forest Area, Items 2-7, 9, 10 and General Forest Area and Wilderness (General), Items 1-11.

Chapter IV. Management Area 7: Wilderness Study Areas -

Page IV-111 Forest Pest Management - Surveys & Technical Assistance and Suppression - STANDARDS AND GUIDELINES - Add "SPB infestations may be controlled in accordance with the management requirements in the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: Wilderness (General), Items 1-7; Wilderness (Protection of Essential RCW Colonies), Items 1-4; Wilderness (Protection of Adjacent Lands), Items 1-6; General Forest Area and Wilderness (RCW Colony Site Protection), Items 1-5; General Forest Area and Wilderness (General), Items 1-11."

Chapter IV. Management Area 8: Wilderness Areas -

Page IV-127 Forest Pest Management - Surveys & Technical Assistance and Suppression - STANDARDS AND GUIDELINES - Add "SPB infestations may be controlled in accordance with the following management requirements in the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: Wilderness (General), Items 1-7; Wilderness (Protection of Essential RCW Colonies), Items 1-4; Wilderness (Protection of Adjacent Lands), Items 1-6; General Forest Area and Wilderness (RCW Colony Site Protection), Items 1-5; General Forest Area and Wilderness (General), Items 1-11."

This amendment is not a significant change in the Cherokee LRMP. The determination that this is a nonsignificant amendment is made in accordance with 36 CFR 219.10(f) and Interim Directive to Chapter 1920 Forest Service Manual (52 Fed. Reg. 4632, February 13, 1987). This amendment does not alter the multiple-use goals and objectives for long-term land and resource management. This amendment adds more specific direction and standards and guidelines for southern pine beetle (SPB) suppression in the general Forest area and wilderness. The amendment does not involve an increase or decrease in resource demands. In summary, this direction for southern pine beetle suppression does



not alter the long-term relationship between levels of multiple-use goods and services projected by the LRMP.

The NEPA analysis for this change of direction has been documented in the Draft and Final EIS for Suppression of the Southern Pine Beetle. The EIS is available for review at the Forest Supervisor's office.

Exhibit 6

Croatan and Uwharrie National Forests  
Land and Resource Management Plan

Amendment #1  
April 1987

Chapter III. Forest-wide standards -

Page III-11. Timber - General Direction - Add the management requirements in the Record of Decision of the Suppression of the Southern Pine Beetle (ROC/SPB), Section VI, MANAGEMENT REQUIREMENTS: General Forest Area, Items 2-7, 9, 10; General Forest Area and Wilderness (RCW Colony Site Protection), Items 1-5; and General Forest Area and Wilderness (General), Items 1-11.

Chapter III. Management Area 8 -

Page III-39. Insects and Disease - General Direction - Add to the second direction statement: "except for southern pine beetle infestations which may be controlled in accordance with management requirements found in Section VI of the Record of Decision/Southern Pine Beetle."

Chapter III. Management Area 8 -

Page III-39. Insects and Disease - General Direction - Add the management requirements except for General Forest Area found in Section VI of the Record of Decision/Southern Pine Beetle.

This amendment is not a significant change in the Croatan-Uwharrie LRMP. The determination that this is a nonsignificant amendment is made in accordance with 36 CFR 219.10(f) and Interim Directive to Chapter 1920 Forest Service Manual (52 Fed. Reg. 4632, February 13, 1987). This amendment does not alter the multiple-use goals and objectives for long-term land and resource management. This amendment adds more specific direction and standards and guidelines for southern pine beetle (SPB) suppression in the general Forest Area and Wilderness. The amendment does not involve an increase or decrease in resource demands. In summary, this direction for southern pine beetle suppression does not alter the long-term relationship between levels of multiple-use goods and services projected by the LRMP.

The NEPA analysis for this change of direction has been documented in the Draft and Final EIS for Suppression of the Southern Pine Beetle. The EIS is available for review at the Forest Supervisor's office.

Exhibit 7

Daniel Boone National Forest  
Land and Resource Management Plan

Amendment #1  
April 1987

CHAPTER IV. FOREST-WIDE PRESCRIPTION REQUIREMENTS.

Page IV-54      Protection - Add the following management requirements from the Record of Decision for the Suppression of the Southern Pine Beetle (ROD/SPB) Section VI, MANAGEMENT REQUIREMENTS: General Forest Area, General Forest Area and Wilderness (RCW Colony Site Protection), and General Forest Area and Wilderness (General).

CHAPTER IV. PRESCRIPTION FOR MANAGEMENT AREA #1 - Wilderness.

Page IV-92      Forest Pest Management - Add: "For SPB, follow the management requirements (except General Forest Area) in the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS."

CHAPTER IV. PRESCRIPTION FOR MANAGEMENT AREA #2: Recommended Wilderness Study Area.

Page IV-98      Forest Pest Management - Add: "For SPB, follow the management requirements (except General Forest Area) in the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS."

This amendment is not a significant change in the Daniel Boone LRMP. The determination that this is a nonsignificant amendment is made in accordance with 36 CFR 219.10(f) and Interim Directive to Chapter 1920 Forest Service Manual (52 Fed. Reg. 4632, February 13, 1987). This amendment does not alter the multiple-use goals and objectives for long-term land and resource management. This amendment adds more specific direction and standards and guidelines for southern pine beetle (SPB) suppression in the general Forest area and wilderness. The amendment does not involve an increase or decrease in resource demands. In summary, this direction for southern pine beetle suppression does not alter the long-term relationship between levels of multiple-use goods and services projected by the LRMP.

The NEPA analysis for this change of direction has been documented in the Draft and Final EIS for Suppression of the Southern Pine Beetle. The EIS is available for review at the Forest Supervisor's office.



National Forests in Florida  
Land and Resource Management Plan

Amendment #1  
April 1987

Chapter IV. FORESTWIDE STANDARDS AND GUIDELINES -

Page IV-30 Forest Pest Management - Item F - Add the following management requirements from the Record of Decision for the Suppression of the Southern Pine Beetle (ROD/SPB), Section VI, MANAGEMENT REQUIREMENTS: General Forest Area, Items 2-10; General Forest Area and Wilderness (RCW Colony Site Protection), All Items; and General Forest Area and Wilderness(General), All Items.

Chapter IV. INTEGRATED PEST MANAGEMENT STRATEGIES -

Page IV-52 Paragraph 5, last sentence, change "When infestations occur, direct control action will..." to "When infestations occur outside wilderness and wilderness study areas, direct control action will ..."

Add "When SPB infestations occur in wilderness or wilderness study areas, follow the management requirements in the SPB/ROD dated April 1987."

Chapter IV. MANAGEMENT AREA 3 (Wilderness) -

Page IV-106 Forest Pest Management - Item A. Change "Forest insect and disease outbreaks..." to "Forest insect and disease outbreaks other than SPB..."

Forest Pest Management - Item A. Add the following management requirements from the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: Wilderness (General), Items 1-7; Wilderness (Protection of Essential RCW Colonies), Items 1-4; and Wilderness (Protection of Adjacent Lands), Items 1-6.

Chapter IV. MANAGEMENT AREA 4 (Wilderness Study Areas) -

Page IV-109 Forest Pest Management - Item A. Change "Forest insect and disease outbreaks..." to "Forest insect and disease outbreaks other than SPB..."

Forest Pest Management - Item A. Add the following management requirements from the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: Wilderness (General), Items 1-7; Wilderness (Protection of Essential RCW Colonies), Items 1-4; and Wilderness (Protection of Adjacent Lands), Items 1-6.

Chapter IV. MANAGEMENT AREA 5 (RCW Colonies and Recruitment Stands) -

Page IV-112 Forest Pest Management - Item A. Change "Control bark beetle outbreaks which threaten RCW colonies" to "Control bark beetle outbreaks which threaten RCW colonies outside wilderness and wilderness study areas."

Forest Pest Management - Item A. Add the following management requirements from the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: Wilderness (Protection of Essential RCW Colonies), all items.

This amendment is not a significant change in the Florida LRMP. The determination that this is a nonsignificant amendment is made in accordance with 36 CFR 219.10(f) and Interim Directive to Chapter 1920 Forest Service Manual (52 Fed. Reg. 4632, February 13, 1987). This amendment does not alter the multiple-use goals and objectives for long-term land and resource management. This amendment adds more specific direction and standards and guidelines for southern pine beetle (SPB) suppression in the general Forest area and wilderness. The amendment does not involve an increase or decrease in resource demands. In summary, this direction for southern pine beetle suppression does not alter the long-term relationship between levels of multiple-use goods and services projected by the LRMP.

The NEPA analysis for this change of direction has been documented in the Draft and Final EIS for Suppression of the Southern Pine Beetle. The EIS is available for review at the Forest Supervisor's office.

Francis Marion National Forest  
Land and Resource Management Plan

Amendment #2  
April 1987

Chapter IV. Forest-Wide Standards and Guidelines -

Page IV-7      INTEGRATED PEST MANAGEMENT - Add "Follow the requirements in the Record of Decision for the Suppression of the Southern Pine Beetle (ROD/SPB), Section VI, MANAGEMENT REQUIREMENTS: General Forest Area, Items 1-7, 9, 10; General Forest Area and Wilderness (RCW Colony Site Protection) and General Forest Area and Wilderness (General)).

Chapter IV. MANAGEMENT AREA 2 -

Page IV-61      Standards and Guidelines - Add: "SPB infestations may be controlled in accordance with the management requirements from the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: Wilderness (General), Wilderness (Protection of Adjacent Lands), General Forest Area and Wilderness (RCW Colony Site Protection) and General Forest Area and Wilderness (General)."

Appendix F - Wilderness Management for the four Francis Marion Wilderness Areas -

Page F-14      Insects and Disease, b. Objectives - Add: "SPB infestations may be controlled in accordance with the following management requirements in the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: Wilderness (General), Wilderness (Protection of Adjacent Lands), General Forest Area and Wilderness (RCW Colony Site Protection) and General Forest Area and Wilderness (General)."

This amendment is not a significant change in the Francis Marion National Forest LRMP. The determination that this is a nonsignificant amendment is made in accordance with 36 CFR 219.10(f) and Interim Directive to Chapter 1920 Forest Service Manual (52 Fed. Reg. 4632, February 13, 1987). This amendment does not alter the multiple-use goals and objectives for long-term land and resource management. This amendment adds more specific direction and standards and guidelines for southern pine beetle (SPB) suppression in the general Forest area and wilderness. The amendment does not involve an increase or decrease in resource demands. In summary, this direction for southern pine beetle suppression does not alter the long-term relationship between levels of multiple-use goods and services projected by the LRMP.



The NEPA analysis for this change of direction has been documented in the Draft and Final EIS for Suppression of the Southern Pine Beetle. The EIS is available for review at the Forest Supervisor's office.

George Washington National Forest  
Land and Resource Management Plan

Amendment #1  
April 1987

CHAPTER IV. FOREST-WIDE MANAGEMENT REQUIREMENTS

Page IV-32 PROTECTION - Forest Pest Mgmt. - Add (under Standards and Guidelines) the following requirements from the Record of Decision for the Suppression of the Southern Pine Beetle (ROD/SPB) Section VI, MANAGEMENT REQUIREMENTS: General forest Area, Items 1-7, 9, 10 and General Forest Area and Wilderness (General), Items 1-11.

CHAPTER IV. PRESCRIPTION FOR MANAGEMENT AREA #1 - Research Natural Areas -

Page IV-37 PROTECTION - Forest Pest Mgmt. - Add (under Standards and Guidelines) the following requirement from the ROD/SPB Section VI, MANAGEMENT REQUIREMENTS: General Forest Area, Item 8.

CHAPTER IV. PRESCRIPTION FOR MANAGEMENT AREA #2 - Wilderness and Wilderness Study Areas.

Page IV-39 PROTECTION - Forest Pest Mgmt. - Add (under Standards and Guidelines) the requirements from the ROD/SPB Section VI, MANAGEMENT REQUIREMENTS: Wilderness (General), Items 1-7; Wilderness (Protection of Adjacent Lands), Items 1-6; and General Forest Area and Wilderness (General), Items 1-11.

This amendment is not a significant change in the George Washington LRMP. The determination that this is a nonsignificant amendment is made in accordance with 36 CFR 219.10(f) and Interim Directive to Chapter 1920 Forest Service Manual (52 Fed. Reg. 4632, February 13, 1987). This amendment does not alter the multiple-use goals and objectives for long-term land and resource management. This amendment adds more specific direction and standards and guidelines for southern pine beetle (SPB) suppression in the general Forest area and wilderness. The amendment does not involve an increase or decrease in resource demands. The amendment does not involve a large portion of the planning area. In summary, this direction for southern pine beetle suppression does not alter the long-term relationship between levels of multiple-use goods and services projected by the LRMP.

The NEPA analysis for this change of direction has been documented in the Draft and Final EIS for Suppression of the Southern Pine Beetle. The EIS is available for review at the Forest Supervisor's office.

Jefferson National Forest  
Land and Resource Management Plan

Amendment #3  
April 1987

CHAPTER IV. FOREST-WIDE MANAGEMENT DIRECTION -

Page IV-93. c. Integrated Pest Management - General Direction - Add the following management requirements from the Record of Decision for the Suppression of the Southern Pine Beetle (ROD/SPB) Section VI., MANAGEMENT REQUIREMENTS: General Forest, Items 1, 2, 4-7, 9, 10, and General Forest Area and Wilderness (General) Items 1-11.

CHAPTER IV - PRESCRIPTION FOR MANAGEMENT AREA NO. 3: -

Page IV-128. c. Integrated Pest Management - General Direction - Add the following management requirements from the ROD/SPB Section VI, MANAGEMENT REQUIREMENTS: Wilderness (General), Items 1-7; (except delete references to "an essential RCW colony," "essential colony sites," and "destruction of an essential RCW colony" in Items 1 and 5 because the Jefferson NF has no essential RCW colonies); Wilderness (Protection of Adjacent Lands), Items 1-6; and General Forest Area and Wilderness (General), Items 1-11 .

This amendment is not a significant change in the Jefferson LRMP. The determination that this is a nonsignificant amendment is made in accordance with 36 CFR 219.10(f) and Interim Directive to Chapter 1920 Forest Service Manual (52 Fed. Reg. 4632, February 13, 1987). This amendment does not alter the multiple-use goals and objectives for long-term land and resource management. This amendment adds more specific direction and standards and guidelines for southern pine beetle (SPB) suppression in the general Forest area and wilderness. The amendment does not involve an increase or decrease in resource demands. The amendment does not involve a large portion of the planning area. In summary, this direction for southern pine beetle suppression does not alter the long-term relationship between levels of multiple-use goods and services projected by the LRMP.

The NEPA analysis for this change of direction has been documented in the Draft and Final EIS for Suppression of the Southern Pine Beetle. The EIS is available for review at the Forest Supervisor's office.



Kisatchie National Forest  
Land and Resource Management Plan

Amendment #2  
April 1987

Chapter 3. FOREST-WIDE MANAGEMENT REQUIREMENTS

Page III-53 Forest Pest Management - Standards and Guidelines - Add the following management requirements from the Record of Decision for the Suppression of the Southern Pine Beetle (ROD/SPB), Section VI, MANAGEMENT REQUIREMENTS: General Forest Area, Items 2-7, 9, 10; and General Forest Area and Wilderness (General).

Chapter 3. MANAGEMENT AREA 4: KISATCHIE HILLS WILDERNESS AREA

Page III-78 Forest Pest Management - STANDARDS AND GUIDELINES - Add: "SPB infestations may be controlled in accordance with the following management requirement from the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: Wilderness (General), Items 1-7."

Chapter 3. MANAGEMENT AREA 19: RCW COLONIES AND RECRUITMENT STANDS

Page III-82 Forest Pest Management - STANDARDS AND GUIDELINES - Add the following management requirement from the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: Wilderness (General), Item I.

This amendment is not a significant change in the Kisatchie LRMP. The determination that this is a nonsignificant amendment is made in accordance with 36 CFR 219.10(f) and Interim Directive to Chapter 1920 Forest Service Manual (52 Fed. Reg. 4632, February 13, 1987). This amendment does not alter the multiple-use goals and objectives for long-term land and resource management. This amendment adds more specific direction and standards and guidelines for southern pine beetle (SPB) suppression in the general Forest area and wilderness. The amendment does not involve an increase or decrease in resource demands. In summary, this direction for southern pine beetle suppression does not alter the long-term relationship between levels of multiple-use goods and services projected by the LRMP.

The NEPA analysis for this change of direction has been documented in the Draft and Final EIS for Suppression of the Southern Pine Beetle. The EIS is available for review at the Forest Supervisor's office.



National Forests in Mississippi  
Land and Resource Management Plan

Amendment #2  
April 1987

Chapter 4 - FOREST-WIDE STANDARDS AND GUIDELINES - TIMBER - RESPONSE TO FACETS  
- STANDARDS AND GUIDELINES.

Page 4-10      Following the second paragraph from the top of the page, add the following management requirements from the Record of Decision for the Suppression of the Southern Pine Beetle (ROD/SPB), Section VI, MANAGEMENT REQUIREMENTS: General Forest Area, Items 2-7, 9, 10; General Forest Area and Wilderness (RCW Colony Site Protection), Items 1-5; General Forest Area and Wilderness (General), Items 1-11.

Chapter 4. PRESCRIPTIONS FOR ANALYSIS AREAS - NOT SUITABLE 6 - Standards and Guidelines.

Page 4-100      Delete Item 6.

Add: "Epidemic conditions of insect or disease may be controlled with Chief's approval except for SPB infestations which may be controlled in accordance with the requirements in the ROD/SPB." Also, add the following management requirements from the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: Wilderness (General), Items 1-7; Wilderness (Protection of Essential RCW Colonies), Items 1-4; Wilderness (Protection of Adjacent Lands), Items 1-6; General Forest Area and Wilderness (RCW Colony Site Protection), Items 1-5; General Forest Area and Wilderness (General), Items 1-11.

Chapter 4. PRESCRIPTION FOR ANALYSIS AREAS. NOT SUITABLE 7 - Standards and Guidelines.

Page 4-101      Delete Item 6.

Add: "Epidemic conditions of insect or disease may be controlled with Chief's approval except for SPB infestations which may be controlled in accordance with the requirements in the ROD/SPB." Also, add the following management requirements from the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: Wilderness (General), Items 1-7; Wilderness (Protection of Essential RCW Colonies), Items 1-4; Wilderness (Protection of Adjacent Lands), Items 1-6; General Forest Area and Wilderness (RCW Colony Site Protection), Items 1-5; General Forest Area and Wilderness (General), Items 1-11.



This amendment is not a significant change in the National Forests in Mississippi LRMP. The determination that this is a nonsignificant amendment is made in accordance with 36 CFR 219.10(f) and Interim Directive to Chapter 1920 Forest Service Manual (52 Fed. Reg. 4632, February 13, 1987). This amendment does not alter the multiple-use goals and objectives for long-term land and resource management. This amendment adds more specific direction and standards and guidelines for southern pine beetle (SPB) suppression in the general Forest area and wilderness. The amendment does not involve an increase or decrease in resource demands. In summary, this direction for southern pine beetle suppression does not alter the long-term relationship between levels of multiple-use goods and services projected by the LRMP.

The NEPA analysis for this change of direction has been documented in the Draft and Final EIS for Suppression of the Southern Pine Beetle. The EIS is available for review at the Forest Supervisor's office.

Nantahala and Pisgah National Forests  
Land and Resource Management Plan

Amendment #1  
April 1987

Chapter III. Forest-wide Direction -

Page III-29. Pest Management - Add the following as general direction statement 2, "Control Southern pine beetle infestations in accordance with the management requirements of Section VI of the Record of Decision/Southern Pine Beetle."

Pest Management - Add new Standards, 1-7, 9, 10, General Forest Area; requirements for General Forest Area and Wilderness (RCW Colony Site Protection) and requirements for General Forest Area and Wilderness (General).

Chapter III - Direction for Management Area 7

Page III-115. Pest Management, 1a. - Add at the end of the standard, "except for Southern pine beetle infestations which may be controlled in accordance with the management requirements of Section VI of the Record of Decision/Southern Pine Beetle."

Pest Management - Add new standards - Add all the management requirements except for General Forest Area found in Section VI of the Record of Decision/Southern Pine Beetle.

Chapter III - Direction for Management Area 8

Page III-119. Pest Management - Add new standard 1b - "Refer to forest-wide direction when controlling Southern pine beetle infestations."

This amendment is not a significant change in the Nantahala/Pisgah LRMP. The determination that this is a nonsignificant amendment is made in accordance with 36 CFR 219.10(f) and Interim Directive to Chapter 1920 Forest Service Manual (52 Fed. Reg. 4632, February 13, 1987). This amendment does not alter the multiple-use goals and objectives for long-term and resource management. This amendment adds more specific direction and standards and guidelines for southern pine beetle (SPB) suppression in the general Forest area and Wilderness. The amendment does not involve an increase or decrease in resource demands. In summary, this direction for southern pine beetle suppression does not alter the long-term relationship between levels of multiple-use goods and services projected by the LRMP.

The NEPA analysis for this change of direction has been documented in the Draft and Final EIS for Suppression of the Southern Pine Beetle. The EIS is available for review at the Forest Supervisor's office.





Ouachita National Forest  
Land and Resource Management Plan

Amendment #1  
April 1987

Chapter IV. - Page IV-11.

P35P Forest Pest Management Suppression

Add: S. "Follow the requirements in the Record of Decision for the Suppression of the Southern Pine Beetle (ROD/SPB), Section VI, MANAGEMENT REQUIREMENTS: for General Forest Area, items 2-7, 9, 10, and General Forest Area and Wilderness (General)."

Chapter IV. - Page IV-21.

E00 Timber Resource Management Planning and Inventory

Add: G. "SPB infestations will be treated following standard under P34B and P35B Forest Pest Management of this prescription."

Chapter IV. - Page IV-22.

P34B Forest Pest Management  
P35B

Add S. "Follow the requirements in the ROD/SPB Section VI, MANAGEMENT REQUIREMENTS for Wilderness (General), and Wilderness (Protection of Adjacent Lands)."

Chapter IV. - Page IV-23.

P34A Forest Pest Management  
P35A

Add S. "Follow the requirement in the ROD/SPB Section VI, MANAGEMENT REQUIREMENTS for General Forest Area, Item 8."

Chapter IV. - Page IV-27.

E00 Timber Resource Management, Planning and Inventory

Add S. "Follow the requirement in the ROD/SPB Section VI, MANAGEMENT REQUIREMENTS for General Forest Area, Item 8.

Chapter IV. - Page IV-30.

E00 Timber Resource Management, Planning and Inventory.

Add        G.    "Follow the requirement in the ROD/SPB, Section VI,  
MANAGEMENT REQUIREMENTS for General Forest Area and Wilderness  
(RCW Colony Site Protection)."

This amendment is not a significant change in the Ouachita LRMP. The determination that this is a nonsignificant amendment is made in accordance with 36CFR 219.10(f) and Interim Directive to Chapter 1920 Forest Service Manual (52 Fed. Reg. 4632, February 13, 1987). This amendment does not alter the multiple-use goals and objectives for long-term land and resource management. This amendment adds more specific direction and standards and guidelines for southern pine beetle (SPB) suppression in the general Forest area and wilderness. The amendment does not involved an increase or decrease in resource demands. In summary, this direction for southern pine beetle suppression does not alter the long-term relationship between levels of multiple-use goods and services projected by the LRMP.

The NEPA analysis for this change of direction has been documented in the Draft and Final EIS for Suppression of the Southern Pine Beetle. The EIS is available for review at the Forest Supervisor's office.

Ozark - St. Francis National Forests  
Land and Resource Management Plan

Amendment #1  
April 1987

CHAPTER 4. FOREST-WIDE MANAGEMENT REQUIREMENTS

Page 4-20      Insect and Disease - Add the following management requirements from the Record of Decision for the Suppression of the Southern Pine Beetle (ROD/SPB), Section VI, MANAGEMENT REQUIREMENTS: General Forest Area, items 1, 2, 4-10; and General Forest Area and Wilderness (General).

CHAPTER 4. Management Area 1 Wilderness

Page 4-23      Insects and Disease - Add to the last sentence: "except for SPB infestations, which may be controlled in accordance with the following management requirements from the ROD/SPB, Section VI. MANAGEMENT REQUIREMENTS: Wilderness (General), Items 2 - 7 (except delete references to "essential colony sites" and "destruction of an essential RCW colony" in item 5 because the Ozark-St. Francis has no RCW colonies), Wilderness (Protection of Adjacent Lands) and General Forest Area and Wilderness (General)."

CHAPTER 4. Management Area 7 Special Interest Areas

Page 4-33      Insect and Diseases. - Add the following management requirement from the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: General Forest Area, Item 8.

This amendment is not a significant change in the Ozark-St. Francis LRMP. The determination that this is a nonsignificant amendment is made in accordance with 36 CFR 219.10(f) and Interim Directive to Chapter 1920 Forest Service Manual (52 Fed. Reg. 4632, February 13, 1987). This amendment does not alter the multiple-use goals and objectives for long-term land and resource management. This amendment adds more specific direction and standards and guidelines for southern pine beetle (SPB) suppression in the general Forest area and wilderness. The amendment does not involve an increase or decrease in resource demands. In summary, this direction for southern pine beetle suppression does not alter the long-term relationship between levels of multiple-use goods and services projected by the LRMP.

The NEPA analysis for this change of direction has been documented in the Draft and Final EIS for Suppression of the Southern Pine Beetle. The EIS is available for review at the Forest Supervisor's office.





Exhibit 17

Sumter National Forest  
Land and Resource Management Plan

Amendment #2  
April 1987

Chapter IV - Forest-Wide Standards and Guidelines -

Page IV-2      TIMBER. Add: "Follow management requirements in the Record of Decision for the Suppression of the Southern Pine Beetle (ROD/SPB), Section VI, MANAGEMENT REQUIREMENTS: General Forest Area, Items 1-7, 9, 10; General Forest Area and Wilderness (RCW Colony Site Protection) and General Forest Area and Wilderness (General)."

Chapter IV - Management Area 1 -

Page IV-31      Standards and Guidelines - Add: "SPB infestations may be controlled in accordance with the management requirements in the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: Wilderness (General), Wilderness (Protection of Adjacent Lands) and General Forest Area and Wilderness (General)."

Chapter IV - Management Area 2 -

Page IV-32      Standards and Guidelines - Add: "SPB infestations may be controlled in accordance with the following management requirements in the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: Wilderness (General), Wilderness (Protection of Adjacent Lands) and General Forest Area and Wilderness (General)."

Chapter IV - Management Area 3 -

Page IV-35      Standards and Guidelines - Add: "Follow the management requirement in the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: General Forest Area, Item 8."

Appendix F - Wilderness Management - Ellicott Rock Wilderness Area (ERWA)

Page F. 11      3.14 - Insects and Diseases - Management Direction - Add: "SPB infestations may be controlled in accordance with the following management requirements from the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: Wilderness (General), Wilderness (Protection of Adjacent Lands) and General Forest Area and Wilderness (General)."

Appendix M

Page M-24      S. OTHER RESOURCE MANAGEMENT, Insects - Disease-- Add: "Follow the management requirement in the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS: General Forest Area, Item 8.

This amendment is not a significant change in the Sumter LRMP. The determination that this is a nonsignificant amendment is made in accordance with 36 CFR 219.10(f) and Interim Directive to Chapter 1920 Forest Service Manual (52 Fed. Reg. 4632, February 13, 1987). This amendment does not alter the multiple-use goals and objectives for long-term land and resource management. This amendment adds more specific direction and standards and guidelines for southern pine beetle (SPB) suppression in the general Forest area and wilderness. The amendment does not involve an increase or decrease in resource demands. In summary, this direction for southern pine beetle suppression does not alter the long-term relationship between levels of multiple-use goods and services projected by the LRMP.

The NEPA analysis for this change of direction has been documented in the Draft and Final EIS for Suppression of the Southern Pine Beetle. The EIS is available for review at the Forest Supervisor's office.